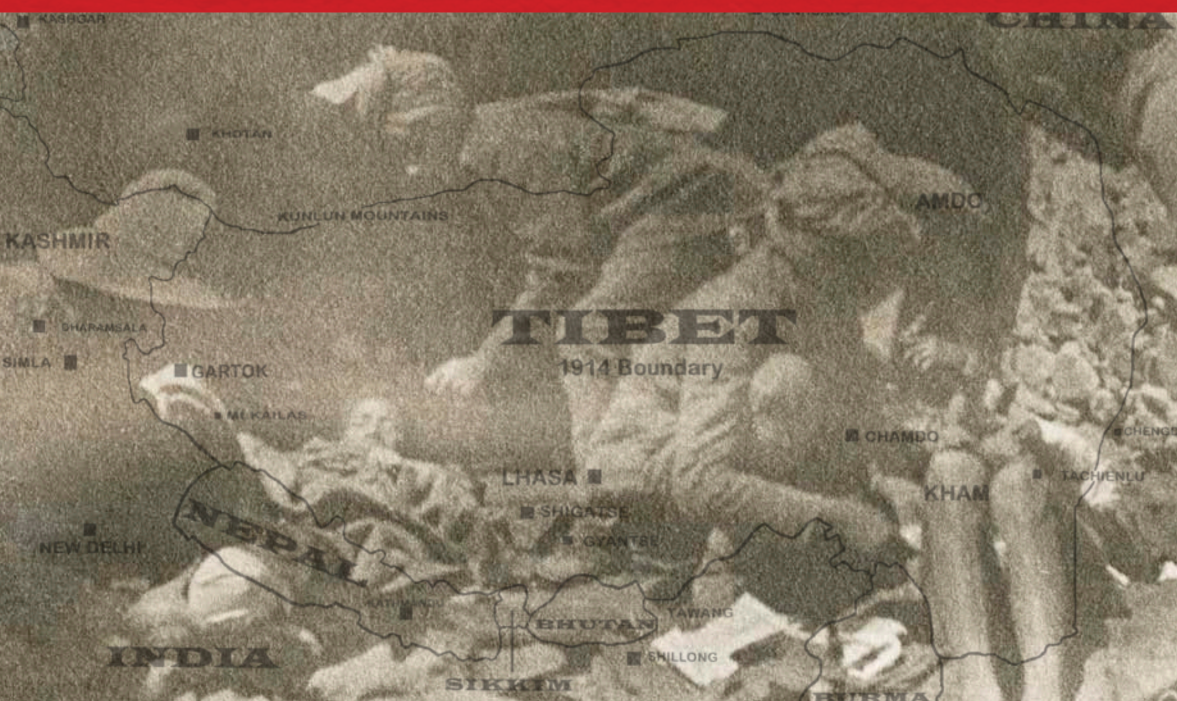
Their Footprints Remain

Biomedical Beginnings Across the Indo-Tibetan Frontier

Alex McKay



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Acknowledgements

The inspiration for this work came during earlier research into the history of the British imperial presence in Tibet. At the Tibetan exile centre of Dharamsala, Westerners could be seen attending the Tibetan Traditional Medicine hospital while Tibetans could be seen attending biomedical Delek hospital. Despite this empirical observation, the existing literature concerning 'Tibetans' and 'medicine' dealt almost exclusively with Traditional Medicine. Given that this use of biomedicine was clearly common throughout the Tibetan cultural world, a study of how that pattern of resort arose was an obvious lacuna in the field.

This study was undertaken in the UK, the Netherlands, US, India, and Bhutan, with the financial and institutional support of a Wellcome Trust Centre for the History of Medicine at University College London research fellowship. I wish to thank Centre Director, Professor Hal Cook, administrator Alan Shiel, secretary Emma Griffin and colleagues Vivienne Lo, Rhodri Hayward, Michael Neve, and Professors Chris Lawrence and Roger Cooter for their support, and for sage assistance in matters Indic and Sanskritic over a number of years, Dominic Wujastyk. I also gratefully acknowledge support from the British Academy and the Royal Society. I especially wish to thank the International Institute for Asian Studies (Leiden), in particular the now retired Director, Professor Wim Stokhof for his long-standing support and encouragement; and the IIAS staff, not least Josine Stremmelaar, Marloes Rozing, and Manuel Haneveld.

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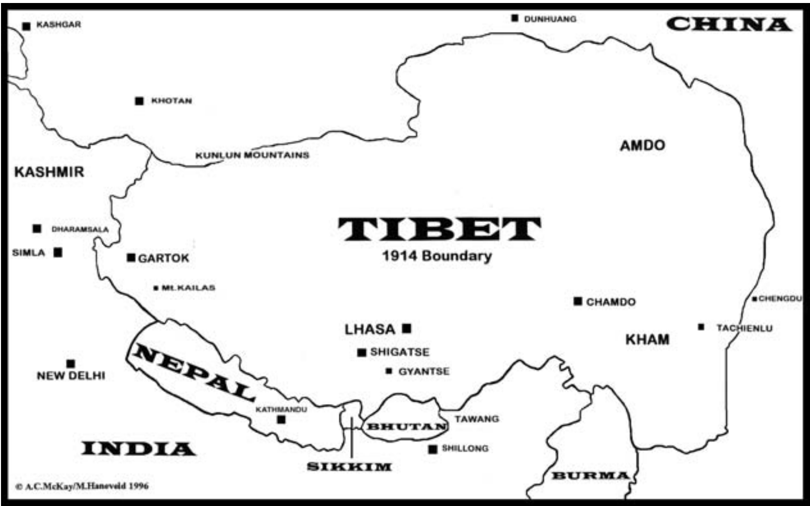
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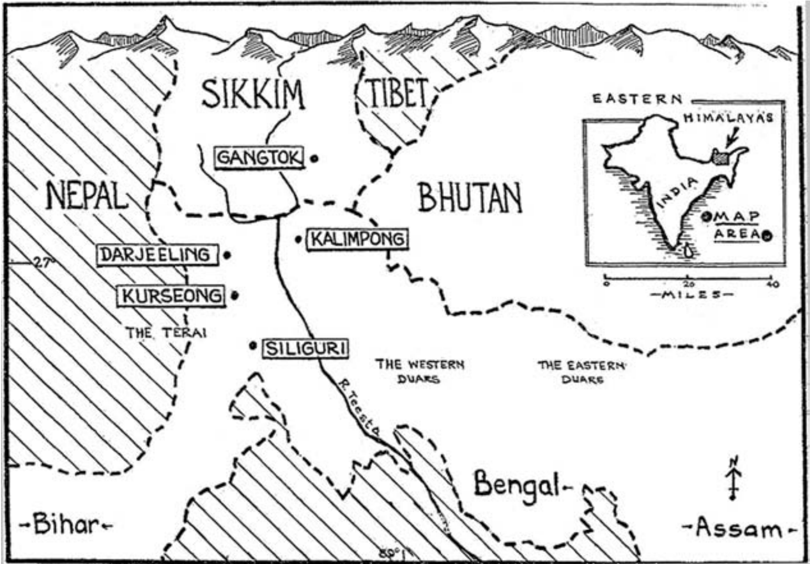
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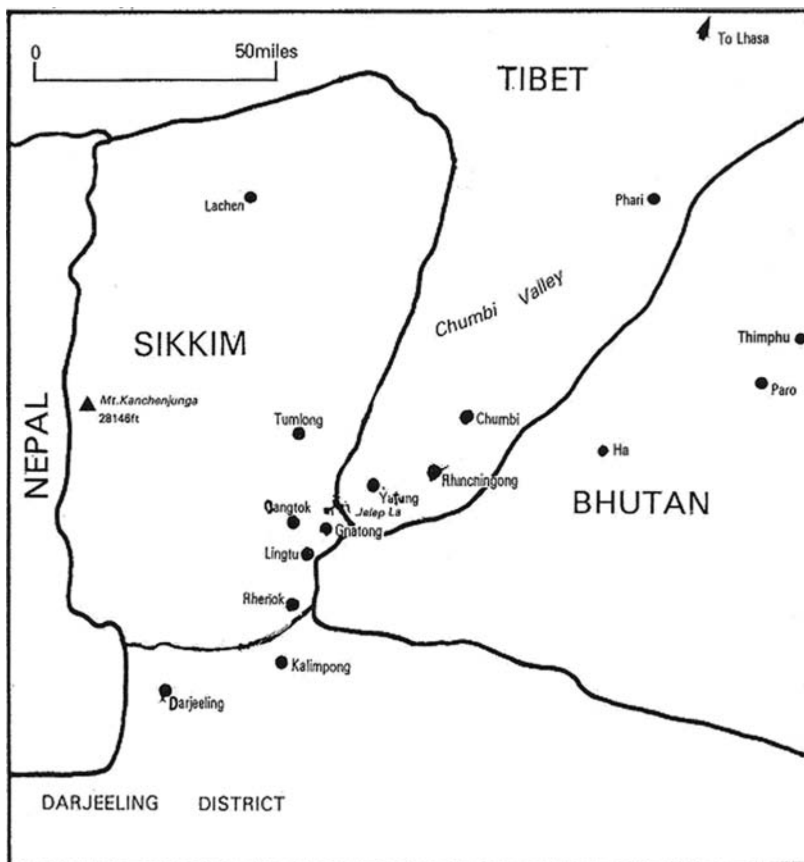
Glossary

Amban	Tibetan *am ban*	Diplomatic representative of the Manchu Emperor in Lhasa
Amchi	Tibetan *am chi*	Doctor
Bhutia	Indic/English	General term for Indian Himalayan Buddhists; also used in early period for Bhutanese
Bön	Tibetan *bon*	Tibetan religious sect; exists in complex historical relationship to Buddhism, with which it now shares numerous elements
Gyü Shi	Tibetan *rGyud bzhi*	Fundamental medical text of *sowa rigpa*
Chakpori	Tibetan *lCags po ri*	lit.: 'Iron Hill', specifically referring to the medical college that existed in Lhasa from 1696-1959
Hakim	Urdu	Practitioner of Unani-Tibb medicine
Jongpon	Tibetan *rdzong dpon*	District Administrator
Mahasiddha	Sanskrit	lit.: 'Great [one of] magic powers'
Men-ze khang	Tibetan *sMan rtsis khang*	lit.: 'Tibetan Medical and Astrological College', specifically referring to the hospital established in Lhasa in 1916

Sowa Rigpa	Tibetan	*gSo-ba rig-pa*	lit.: 'science of healing'; the elite textual practice of medicine in Tibetan cultural regions
Rai Sahib/Bahadur	Indic		British imperial titles given to indigenous employees


KASHGAR
DUNHUANG
CHINA
KHOTAN
KUNLUN MOUNTAINS
AMDO
KASHMIR
DHARAMSALA
TIBET
1914 Boundary
SIMLA
GARTOK
Mt.KAILAS
CHAMDO
CHENGDU
LHASA
TACHIENLU
KHAM
SHIGATSE
GYANTSE
NEW DELHI
NEPAL
KATHMANDU
BHUTAN
TAWANG
INDIA
SHILLONG
SIKKIM
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SIKKIM
TIBET
EASTERN
HIMALAYAS
GANGTOK
INDIA
NEPAL
BHUTAN
MAP AREA
KALIMPONG
DARJEELING
27°
KURSEONG
MILES
THE TERAI
SILIGURI
THE WESTERN DUARS
THE EASTERN DUARS
R. Teesta
Bengal
N
Bihar
Assam
88°


0
50miles
To Lhasa
TIBET
Lachen
Phari
Chumbi Valley
SIKKIM
Thimphu
Paro
NEPAL
Mt.Kanchenjunga
28146ft
Tumlong
Chumbi
Ha
Rhunchingong
Yatung
BHUTAN
Gangtok
Jelep La
Gnatong
Lingtu
Rheriok
Kalimpong
Darjeeling
DARJEELING DISTRICT

Introduction

During the latter half of the 19th century, health care in the Western world was radically transformed by a series of dramatic advances in the theory and practice of medicine. The discovery that most common infections were caused by biological agents ("germs") led to the development of entirely new therapies and curative strategies. That finding also underpinned the development of invasive surgery as a major arm of medical practice, something which only became possible when the need for aseptic conditions was recognised.

A host of other developments during that period helped fuel the medical revolution. Among major advances were the emergence of reliable anaesthetics that prefaced major surgery becoming routine in the metropolis, and the manufacture of improved technological aids to diagnosis, such as microscopes and X-rays. These enabled specific disease-causing agents to be identified and subsequently countered. Within a few decades of the breakthrough in understanding disease causation, many of the epidemic diseases that had plagued mankind throughout recorded history had been largely eradicated from Western society.

Scientific and technological advances in medicine were mirrored in the social sphere both by environmental transformations in individual and group practice – clean houses and streets for example – and by a growing professionalisation of the medical world. Medicine in the West became an organised body of knowledge and practice, with professional journals to disseminate agreed norms and new research. Standardised training and qualifications were instituted and these were recognised and regularised at state level. Medicine became part of the apparatus of the state, which sponsored research and structural improvements in both civil and military spheres. These developments greatly enhanced the formerly low status of the medical profession. It became increasingly dominated by practitioners from the middle and upper classes, which extended its social authority and strengthened its links to the state and political power.

As a result of this process, from around 1870 onwards, medicine in the West became increasingly distinct from the non-Western medical systems with which it had earlier shared numerous concepts, practices,

and historical links. It also became almost entirely distinct from its own earlier understandings and practices. The new form of medicine did build on existing structures, and there were certain elements of continuity such as a shared ethical basis as encapsulated in the Hippocratic oath. But medicine in the West now became a full-fledged 'medical system', in the sense that it was both an organised body of knowledge and practice concerning diagnosis and therapy, and a dynamic entity situated within socio-political, historical and economic processes.

The systemisation of medicine was part of a wider post-Darwinian process of scientific and technological modernisation that transformed Western society on the basis of new secular scientific worldviews. The authority of the new medical system primarily derived from its scientific basis, and while it inherited the general designation of 'medicine' from its predecessors, if further distinction was needed the term 'scientific medicine' was used. But the emergence of this system in an era of European colonial rule meant that its theory and practice were rapidly transmitted to colonial territories such as India, where the British had established a dominant presence in the 18th century. There it was commonly known as 'Western medicine' in acknowledgement of its origins and to distinguish it from the local medical practices. ('Western medicine' is used here for the pre-1900 period or in an oppositional context.[1] It later acquired other names including 'biomedicine' – used here to indicate associations with systemisation and modernity. 'Western biomedicine' is used to refer to the totality of these meanings.)

By the beginning of the 19th century, the British East India Company was the leading power in Bengal and it was increasingly drawn into engagement with their northern neighbours as the century progressed. Major wars were fought against the Nepali, Sikh and Bhutanese kingdoms, as well as minor campaigns against lesser Himalayan principalities, until the British controlled the entire northern frontier of India from Burma to Afghanistan. Across the Himalayas, behind each of the states they had conquered, lay Tibet. That mountainous land had been visited by East India Company emissaries in the 1770s but had, since 1793, followed a policy of isolation from European influence. British India was determined to establish diplomatic and trading links with the Tibetan state, whose exact political relationship with China, its nominal *suzerain*, remained unclear to the British. That determination increased with fears that Russia, Britain's great rival in Central Asia, might gain influence at Lhasa.

After effectively taking over Sikkim in 1888-89, a British mission under the diplomatic control of Colonel Francis Younghusband invaded Tibet in 1903-04 and forced them to accept diplomatic ties with British India to the exclusion of Russia. In the wider context of the 'Great Game', the even-then romanticised contest between Britain and Russia

for control of Central Asia and the passes to India, the Younghusband mission was a major initiative. The Tibetan frontier was thus at the forefront of imperial strategies at the time, and a personal concern of the Viceroys of India, particularly the great pro-consul, Lord Curzon (1899-1905).

Like trade, medicine followed the flag. British physicians accompanied both diplomatic and military missions beyond the expanding boundaries of British India. Their primary purpose was to maintain the health of the imperial forces, but they also treated all comers among the indigenous population, including those wounded by imperial armies. This was a deliberate policy. While there was a significant humanitarian aspect to their work, its political value was recognised as being of primary importance to the interests of the colonial state. It was observed that:

> The peaceful and civilizing influence of the work done in the dispensaries and by regimental surgeons on the frontiers of India, has been in political importance equivalent to the presence of some thousands of bayonets ... no amount of military coercion or of purity of administration could have exercised the same pacifying effect ... produced by the sympathetic care and successful treatment of diseases, many of which had previously been considered incurable.[2]

Biomedicine thus formally entered Sikkim and Tibet along with the invading British forces in 1888-89 and 1903-04 respectively, and it was subsequently developed under imperial authority. But there were other forces that played a part in the spread of the new medical system into the Tibetan world. A significant contribution was made by a separate if loosely linked force; Christian missionaries. The success of their evangelical efforts in India had hitherto been limited, but missionaries found the new medical technologies a powerful tool for gaining increased access to local society. As a result, there was a rapid growth in the number of medically-qualified missionaries in the last years of the 19th century. Many were attracted to service in the Himalayan regions and as the Government of India spread its influence northwards to the Tibetan frontier, the missionaries too became increasingly focussed on that land. They established a chain of medical centres around Tibet's frontiers with India and China in the hope that this would lead to their being allowed to enter, and ultimately to evangelise in, Tibet. Government and missionary medical initiatives thus advanced in conjunction, though not necessarily or always in co-operation.

Although itinerant dispensaries were suggested at a late stage, both missionary and government medical initiatives followed the dispensary

model of small biomedical centres; 'one of Western medicine's most distinctive and effective institutional forms'.[3] The dispensary system model provides a structural example of the many continuities in colonial and post-colonial medicine in South Asia. It remains paramount to this day, and has also been adopted by systemised Traditional Medicine.

The impact of the new medical system on the indigenous population of the Himalayas was initially very limited and its uptake slow and notably selective. But as it became increasingly popular with the local people aspects of biomedical practice were adapted to local conditions and cultures and its structures and personnel were gradually indigenised in the later 20th century. In most Himalayan states, this process was only completed in the post-colonial period, when India and China gave predominancy to biomedicine in the provision of public health services. But in at least one state – Sikkim – the process was virtually complete by the end of the colonial period.

The origins of the systematic transfer of Western medicine to the Himalayas are to be found, therefore, in three factors which began to converge in the 1870s. Firstly, the conjunction of scientific and medical advances in the metropolis; secondly, the political circumstances in British India; and, finally, the increasing use of medicine as a conversion strategy by missionaries. In the 20th century, the influence of the missionaries slowly faded, but the imperial government continued to use medicine as a political weapon in the region until the British withdrew from South Asia in the late 1940s. Their role was then inherited by the new governments of India and China.

Regional scope

In this work we follow the introduction and development of biomedicine in the wake of British imperial movements through Sikkim to central Tibet and Bhutan, and discuss issues arising from that process. 'Tibet', unless otherwise specified, refers here to the traditional central provinces of Ü and Tsang, and in particular to the areas around the British medical dispensaries at Yatung, Gyantse, and the Tibetan capital, Lhasa.

We are concerned here with the biomedical system, rather than with earlier European medical practice in the region. By the 1870s, when at least the theoretical aspects of the new medical system were becoming established, imperial efforts to create political links to Lhasa through Nepal or the western Himalayas had been largely abandoned.[4] Thus, while there were medical initiatives in those regions with many similarities in form and process to those of the eastern Himalayas, develop-

ments there were structurally and strategically separate from the process examined in this work. While noting, therefore, some relevant aspects of developments in the western Himalayas and the medical efforts of 18th century Catholic missionaries in Tibet, the arrangement of chapters and the regional focus of this narrative reflects the post-1870 movements from Kalimpong-Darjeeling, through Sikkim towards the Tibetan capital.

We thus trace early biomedical developments in the frontier districts, particularly Kalimpong, in chapter one, before considering Sikkim in chapter two, and Tibet in chapters three and four. Chapter five discusses Bhutan, a state much neglected by the British and one where the development of biomedicine was largely a post-colonial process. In chapter six, we discuss the problematic issue of how and why biomedicine was taken up, established, and indigenised among Himalayan peoples with pre-existing cultural forms of healing. This discussion is followed by our conclusions.

It is important to remember that the region with which we are concerned was not formally part of British India. It was, in the contemporary view, the northern frontier of that empire and the primary imperial concern with that frontier was in the context of British India's security. Tibet, Sikkim, Bhutan and other Himalayan states were seen as a strategic 'buffer' protecting British India from the Russian and Chinese empires. For the British, in the absence of any great economic imperatives, actual political control over these regions was only needed to the extent necessary to ensure British predominance over the foreign policy of those states, and the consequent exclusion of Russia and China from any influence there.

These states were culturally distinct from the Indian plains, and were not generally treated by the British as an integral part of the India they constructed. Politically, Tibet remained entirely independent of India during the colonial period, while Bhutan and Sikkim were brought under variations of the 'Princely states' system.[5] Under that model, local rulers maintained at least nominal control over the internal affairs of their realms. The result was that the British had little or no direct impact on the lives of the majority of the people there. But the local rulers agreed to be influenced – and were often firmly controlled – by a British Resident appointed by the Foreign and Political Department [hereafter; the Political Department[6]]. This Department was, in effect, the diplomatic corps of the Government of India, concerned with relations with neighbouring and Princely states, and it was directly answerable to the Viceroy.

A single Resident, locally designated (after 1905) as the 'Political Officer Sikkim, Bhutan and Tibet', acted as the Government of India's diplomatic representative to these Himalayan states. There were nu-

merous distinctions between them and British India. European settlement there was generally forbidden, for example, and even European private travellers were subject to strict controls or entirely excluded. This political model meant that the imperial encounter on the Indo-Tibetan frontier was a very different one to that which occurred in those regions subject to direct rule by the Government of India. As a result the histories of processes in these states often differ considerably from those of British India.

In the absence of an established designation, I have used the term 'Indo-Tibetan frontier' to describe the primary region under consideration here. While in the general sense indicating the northern frontier of India bordering on Tibet (although we exclude from consideration Nepal, with its distinct historical trajectory),[7] it should be understood specifically as indicating that frontier medical zone that included Kalimpong-Darjeeling, Sikkim, Bhutan and the trade route from Yatung via Gyantse to Lhasa.

Contemporary political and strategic theory recognised that while states were separated by a political border demarcated by lines on the map, there was also a much broader transitional zone on either side of that border. That broad frontier was made up of a series of overlapping zones not only of local cultural influences, but also of European expansion. Elements such as missionaries, private travellers, technologies and modern infrastructure might all be restricted to zones short of the actual border, but others groups such as explorers, scientists, traders and the military might all advance to points beyond the border. Thus, at any particular time, there was a missionary frontier, a trading frontier, a frontier of exploration, and so on, which marked the extreme limit of operations for that group.[8] In British colonial perspective and process, as the Younghusband mission demonstrated, Lhasa was the most advanced point of their military frontier with Tibet. Lhasa also marked the extreme limit of British-Indian government medical intervention, and was thus both the military and the medical frontier.

The Indo-Tibetan frontier, as we define it, was one where the dominant cultural forces had been historically shaped by Tibetan Buddhism rather than by those of the Indic or Islamic traditions. In the medical context, it was a major setting for the encounter between Western biomedicine and indigenous medical practices. As will be seen, these indigenous practices were in some sense associated with Tibetan Buddhism, for by the late colonial period structural support for the elite medical traditions of the Indian plains – Āyurveda and Unani-Tibb – was limited to the courts of rulers such as the Maharaja of Chamba in the western Himalayas.

Despite the size and significance of this region, its biomedical history has not previously been analysed. This work is primarily intended

as an opening narrative of that process, outlining the main developments and identifying the agencies involved from the perspective of Western sources. Attention is drawn to particular themes and issues that those sources indicate are significant and worthy of a more in-depth analysis by future scholarship, while consideration is also given to those elements which appear to relate to existing studies, models, and understandings in the field of South Asian and wider medical history.

The use of Western sources dictates, however, that there are many issues not dealt with here. These include pathologies of endemic conditions such as enteric fevers, pharmaceutical and medical technology issues, and matters relating to globalisation or post-colonial public health policies. In addition, the colonial sources rarely touch on issues relevant to questions of gender or reveal patient perspectives other than those illuminated through the thickest of colonial lenses. Most notably perhaps, they almost entirely ignore the indigenous medical world.

In India, as David Arnold has noted; 'Confidence in the transforming, modernising power of science climaxed with the viceroyalty of Lord Curzon',[9] and given that the British advance into Tibet was largely due to Curzonian initiatives, it was to be expected that contemporary biomedical doctors, both official and missionary, were convinced of the superiority of their system. As was the case in China,[10] they were so confident that biomedicine would overcome indigenous medical practices that they did not actively seek to combat them. Indeed, in the absence of any specifically 'Tibetan diseases' that might have stimulated communication, the European physicians apparently took no interest at all in local medical knowledge; this was not a cultural exchange. Dr. M.V. Kurian, for example, an Indian Christian who served as Gyantse Medical Officer in the 1940s and made two visits to Lhasa accompanying British Political Officers, did not recall ever specifically meeting any Tibetan medical practitioners.[11]

Dr. W.S. Morgan, who served in Lhasa in 1936-37, does quote approvingly the opinion of his colleague, the Sikkimese sub-assistant surgeon Bo Tsering, who while extremely dismissive of the Tibetan monastic practitioners' medical knowledge and skills, 'conceded them certain limited powers of observation, a readiness to use new and effective drugs and medications, and, above all, an anxiety to learn more'.[12] But it appears that none of the colonial doctors who served in this part of the Himalayas ever seriously studied the indigenous medicine. The British did not consider that they were facing an alternative system; they saw the Himalayan medical field as *terra nullius* – an empty land.

Significance of the period

In this work, we trace the earliest foundations of Western medical influence in the region, and examine in more detail the late 19th century developments in Kalimpong and Sikkim. We also discuss aspects of the post-colonial period that reflect issues emerging from the colonial era in order to illuminate continuities in such areas as structural frameworks, or individual and group histories. But our primary focus here is on the first half of the 20th century, the period from the opening of Tibet to British influence in 1903-04 down to decolonisation in the late 1940s. This period embraces not only a critical fracture in Tibetan history but also the florescence of biomedicine, for it was an era in which the system's boundaries were, at least in the popular imagination, seemingly limitless.

The focus on this period is of considerable significance in regard to the wider historiography of colonial medicine in South Asia. By the time Western medicine became a significant factor in our region the biomedical revolution had advanced considerably. Bacteriological disease causation was understood, effective anaesthetics were available, x-rays, stethoscopes, thermometers and microscopes were in use, and improved treatments were emerging for venereal diseases, typhoid, tuberculosis, and a host of other major diseases.[13] There were generally effective means to prevent the great scourges such as smallpox and cholera, while surgical intervention now offered an almost unimaginable advance on earlier practice. These advances continued and by the 1940s innumerable conditions that were once almost inevitably fatal were routinely, and even promptly, curable.

The British dispensaries on the Indo-Tibetan frontier, both government and missionary, were not at the forefront of this medical progress. They did not, for example, have regular X-ray facilities in Gangtok until the 1920s or in Tibet until the 1940s. In addition, the dispensaries were poorly funded and poorly equipped, and the quality of the medical staff there varied. Yet the doctors there were a part of that wider body of new knowledge and practice and could send favoured patients for treatment in better equipped medical institutions in India.

Existing studies of medical history in colonial era South Asia have focussed overwhelmingly on the 19th century, before, or in the early trial stages of these great biomedical advances. Such studies are therefore, describing a very different world from that in which Western medicine developed in the Himalayas. Many lessons had been learned by the British from their successes and failures in introducing new medical theory and practice in India during the 19th century and those lessons were applied in our region in the 20th century. The conclusions advanced here are consequently often very different from those reached

by existing scholarship in the field (as discussed below). Those differences are, however, frequently attributable to the distinct periods and places under examination.

The comparative neglect of the later era is unfortunate. The 1870-1950 period is an enormously exciting one. It was a time of real achievement in which real benefits accrued not only to the traditional indigenous elites or to the supporters of empire, but to non-elite groups and individuals. The most humble members of Himalayan society – beggars, outcastes, tribal peoples, landless labourers, and so on – generally did not receive the same standards of care that imperial government servants or local aristocrats did (for the latter were treated in private consultations). But they were nonetheless immunised against smallpox with the same vaccines and dosages that the elites received, and gained equal protection. Their wounds were treated with modern pharmaceuticals and imperial surgeons removed cataracts and restored sight regardless of social class. It is doubtful that in 1850 Western medicine was more efficacious overall than the indigenous practices; by 1900 it was distinctly so.

In analysing biomedical developments, we may acknowledge that no other advance in human history has saved or improved so many lives at all levels of society. But in presenting a narrative of biomedical progress it is not intended to obscure those aspects of colonialism in this region that do not reflect well on the British – the ill-treatment of both Sikkimese royalty and labouring classes, the massacre of Tibet's medieval forces by Younghusband's machine-gunners, the neglect of Bhutan and of Himalayan districts such as Chamba, or the post-1947 abandonment of Tibet to its fate. But if the introduction of biomedicine was neither unproblematic nor uncontested, it was almost invariably offered rather than imposed. In addition to saving or fundamentally improving countless lives that would have been lost under the existing regime,[14] biomedicine gave lasting empowerment to non-elite indigenous groups and individuals within the new medical structures. It was not a justification for colonialism, though it was and is often claimed as such, but overall, medicine was a fundamentally benign and generally beneficial aspect of that process.

Motives

While the initiatives of the colonial state and Christian missionaries were the major forces which stimulated the development of biomedicine in this region, two other forces must be briefly noted. Firstly, there are indications that a considerable private trade in biomedical products developed. In the early period, for example, the missionary Annie Tay-

lor took advantage of the 1893 Trade Regulations to open a shop across the Sikkim-Tibet border in Yatung in 1895, where she sold pharmaceutical products,[15] while new health understandings may also be indicated by the record of 720lbs of soap and 6,694 towels being exported to Tibet in 1899.[16] While the significance of commercial imperatives is difficult to judge without access to pharmaceutical company archives, the use of Penicillin and other injectable medicines was notoriously widespread by the late colonial period. This suggests the existence of a medical world outside of both indigenous and colonial authority, a medical market place that reflects both a frontier zone where state authority was limited and mediated through local structures of power, and a period in which medical knowledge was in a fluid, transitional, and contested phase.

European travellers who used medicine as a means to gain the goodwill of their hosts are also a factor to be considered, although the significance of their medical interventions is more problematic. It has, however, a long history. Even before the discovery of bacteriological disease causation heralded the great scientific advances of biomedicine, 'it was taken as a matter of course that every European was skilled in medicine'.[17] In that they travelled in areas beyond the reach of official initiatives these travellers may be assumed to have helped spread a knowledge of European medical practice.

We may, however, draw a simple distinction between the medical undertakings of European travellers and those of missionary societies and government bodies. The travellers' aims were short-term. Some carried spare medicines, but as one recalled:

> We had never refused a request for medical attention; but we had neither the skill nor the drugs to cure anyone ... perhaps we had given some temporary relief with the psychological benefit of a pill. It did not matter greatly to us, because the next day we were on the road again and were miles away before it was discovered that our medicine was useless.[18]

In contrast, the aims of both the Government of India and the missionaries were long-term. As the earlier quotation indicates, there was a clearly articulated political context to the imperial power's support for medical developments on the northern frontiers of British India: Medical services were intended to win indigenous support for the British presence. Yet the existence of other motives and agencies spreading biomedicine, and the complex processes of medical promotion and reception cannot be reduced to fit a simple model of colonial imposition. While medicine was in many senses a powerful 'tool of empire',[19] it was also a power that the imperial government was keen to hand over

to the indigenous peoples, not least because the colonial state lacked the financial resources necessary to meet the growing consumer demand for biomedical services.

In the wider sense, the introduction of biomedicine is part of the history of the encounter between non-Western cultures and Western modernity. Medicine was one of a number of modern systems, sciences, and technologies that were introduced into the Himalayas during this period. Its history provides a specific example of how that encounter produced stresses and fractures in existing socio-cultural, political, and economic structures and processes, and how it resulted in far-reaching transformations in indigenous worldviews and the production of radically new systems and authority structures.

Biomedical beginnings are also a part of imperial history in that the initial agents of change were mainly European colonial officials or Christian missionaries, and this work demonstrates an important point often neglected – the extent to which imperial power was fragmented at local levels. The British lacked the personnel, the financial resources, and the desire to constantly enforce their will in the face of resistance. The application of force was thus reserved for extreme cases, while there were constant displays of symbolic power designed to foster an impression of overwhelming imperial strength. This included the deliberate cultivation of British *prestige*, which was seen as a weapon in the struggle to convince the indigenous people that resistance was futile. At the same time, the British attempted to gain their consent, with various strategies of "improvement" aimed at winning support from different social groups, particularly, but not exclusively, the elite classes.[20] This need for consent, and existence of different ideas and schools of policy within British administration, meant that ideas and policies implemented by the centre were constantly mediated at all levels of the administration. This process engaged imperial and local officials in complex cultural dialogues and political negotiations in the search for locally acceptable applications of government policies.

The need to take local opinion into account was particularly pronounced in those areas of British influence and operation that were outside the direct authority of the Government of India; the "Princely states" and neighbouring polities such as Tibet. Because we are here concerned with those areas, it should be reiterated that conclusions reached by studies of medical developments within British India cannot necessarily be applied to our region. "Resistance", for example, needs to be contextualised within the complex historical processes of cultural and state formation that occurred on this frontier during the period under consideration.

This history is also a narrative embedded in the local annals of the Himalayas. In places such as Sikkim and Bhutan what was once a for-

eign medical system is today indigenous in practice, personnel, and power (and it is for this reason that I have described biomedicine as "indigenised" rather than the more common term "adapted"). Through interaction with local cultural premises it has also, like the Indian railways, taken on a distinct local or national character. Its foreign roots point to a historical fracture, but its memories are primarily preserved in local traditions. The imperial pioneers of the system are characters on a local landscape whose lives and works are remembered in local history and memory and whose influence is manifest there. As one Himalayan medical officer consulted during research for this work recalled; 'Their feet are gone, but their footprints remain.'[21]

The historical context of medicine in the Tibetan world

Although the early biomedical proponents had assumed that their system would supplant and eventually eliminate local medical traditions, that did not occur. Far from being eliminated, the indigenous traditions responded to the new challenge, surviving and even prospering through strategies of adaptation, systemisation, and reinvention. While it is not the intention of this work to focus on such issues, they are considered in as much as they relate to the biomedical world.

We lack a comprehensive critical history of indigenous medicine in the Tibetan cultural world and it is not the intention of this study to provide that history. We do, however, briefly survey post-colonial developments in this regard, as they are fundamental to an understanding of what is popularly known today as "Tibetan medicine". The following outline is given, therefore, to problematise that term and to locate the British period within the wider history of the Tibetan medical world.

Just as we lack a standard term for the colonial medical system, the indigenous medical practices and understandings prevailing in the Tibetan cultural world during the colonial period cannot be properly subsumed under the term "Tibetan medicine", which implies a systemisation that was largely absent at that time. There did exist an elite medical tradition, which drew on textual sources and was in some ways linked to state structures. But that was just one aspect of the indigenous medical world and the extent to which it was accessible to the majority of the population is questionable.

The elite tradition was termed *sowa rigpa* (Tibetan: "the science of healing"), which was a branch of Buddhist learning. Following the first of the "Four Noble Truths" proposed by the historical Buddha – that "All Existence is Suffering" – healing in the Buddhist understanding had wider implications than the purely physical. *Sowa rigpa* was thus practised by Buddhist monks or in lineage traditions rooted in Bud-

dhist authority. Its core texts, which were included in the Tibetan Buddhist canon (*Tengyur*), include a considerable amount of material that in Western understanding is religious rather than medical.

Although mundane causation might be recognised, as with drunken falls and brawls, religio-philosophical understandings of affliction causation predominated in Himalayan societies and most curing strategies involved some form of ritual resort, whether to Buddhist monastic, or to spirit-medium or other healers.[22] But there were methods for treating conditions such as hydrophobia and snakebites that were considered rational according to biomedical understanding,[23] and the use of mercury in the treatment of syphilis was known as it had been in 19th century Western medicine.[24] In addition, there was an extensive pharmacology, primarily herbal, but also containing animal and mineral elements, including such exotica as bear's bile, elephant gallstones, snake meat, and rabbit hearts.[25] Curing was thus generally a bipartite strategy involving curative substances and religio-magical resort, including such variations as pilgrimage, but it was not necessarily specifically connected to the teachings of *sowa rigpa* or even to Buddhism.[26]

The Himalayas were richly endowed with plants considered medicinal and their collection, distribution, and transportation were important elements in both local and long-distance trading economies.[27] But while a knowledge of medicinal herbs seems to have been wide-spread in Himalayan societies, at the non-elite level the availability of all but the most basic curing elements such as butter and salt cannot be presumed and healing practices must have often been far-removed from any links to elite procedure. In areas where professional doctors were not available, religious aspects of curing might be at best tenuously linked to regional forms of "world religions", with other-worldly curing strategies based almost entirely on local beliefs and practices. Even if such peripheral and local medical worlds were dynamic and open to innovation, they were far removed from *sowa rigpa* and limited resources must have been their dominant element.

While a great variety of localised practices appear to have been utilised by village level healers (and this medical realm may have been a less patriarchal field), any reconstruction of the history of these non-elite traditions is problematic. The history of *sowa rigpa*, however, may be outlined. Studies indicate a long and dynamic period of development prior to the establishment of a canonical medical tradition. That tradition, it should be noted, presents its teaching as authentic revelations of the Buddha in his manifestation as Sangye Menlha, the "Medicine Buddha".

The earliest Tibetan historical sources date from the 7th century CE, when a nascent "Tibetan" state emerged and rapidly established a Cen-

tral Asian empire that lasted down to the mid-9th century. This was a cosmopolitan empire. At its height, Tibetan forces ranged from Samarkand in the west to present-day Xian in the east, opening Tibet to foreign elements such as Buddhism, which became increasingly influential at court level. In the medical field, although Indian, Chinese and other influences were present, it was, as Christopher Beckwith has famously revealed; 'Greek medicine [that] was initially the most important medical tradition in the early Tibetan Empire.'[28]

After the collapse of that empire, a Tibetan state was gradually reconstructed. Late Indian Mahayana and Tantric Buddhism was made an integral part of the cultural and political organisation of this state, with the transmission and translation of a vast corpus of Sanskrit texts and oral lineage teachings forming the basis for the future development of Tibetan Buddhist culture. The teachings of *sowa rigpa* were in some form part of that culture, which subsequently spread to become the dominant "high culture" of much of Central Asia and the Himalayas. *Sowa rigpa* thus reached peripheral regions such as Mongolia,[29] Ladakh, and Kalmykia that were, or later became, distinct polities in which *sowa rigpa* continued to be the basis of their elite medical practice.

The primary textual basis of *sowa rigpa* was, and remains, the *Gyü Shi* ("The Four Medical Tantras"). This work, of some 156 chapters and 5,900 verses, is, along with later commentaries, central to any exposition of the subject. While its origins are disputed within both the Tibetan and Western academic traditions, the *Gyü Shi* is most probably a post-11th century Tibetan compilation of earlier works from Indic, Persian, Chinese and indigenous medical traditions.[30]

During the 17th century, numerous aspects of Tibetan administration were systemised under the rule of the 5th Dalai Lama [reigned; 1642-82]. His centralising policies established many of the political and cultural characteristics of the Tibetan state that were to survive into the 20th century. Among the first elements subject to these policies was medicine, with attempts made to found medical institutes in Lhasa and Shigatse from 1643 onwards.[31] Although the Dalai Lama actually "passed to the heavenly fields" in 1682, his death was concealed for around fourteen years, during which time Tibet was ruled by the Regent Sangye Gyatso. The Regent was himself a scholar of *sowa rigpa* and the author of major commentaries on the *Gyü Shi*. In 1696 he founded a monastic college which became the Chakpori ("Iron Hill") medical institute in Lhasa. This institute drew together the diverse teaching lineages, standardising and systemising medical education and practice within monastic traditions, thus linking medicine into the structures of the religio-political state.[32] This incidentally ensured that

elite medical practice was an exclusively male preserve, as was, to a great extent, the non-monastic practice of *sowa rigpa*.

The foundation of Chakpori was a significant step towards the systemisation of medical practice within Tibet. But it is surely an exaggeration to describe its founding as 'the beginnings of Public Health in Tibet',[33] given that no preventative health strategies seem to have followed, and that no state-wide bureaucracies or other structures appear to have been associated with the institution. Medical students at Chakpori were monks,[34] and the best students generally became personal physicians to various religious and political leaders throughout Asia. Others were posted to monasteries and are thus unlikely to have had time to deal with the general public,[35] particularly women (with whom any intimate association was a breach of monastic codes). Even the concept of public health would seem foreign in this period, which predates the rise of the Nation-state system and its associated assumption of state responsibility for the health and welfare of its citizens.

Chakpori monastic college remained the premier medical institute in Tibet until its destruction by Chinese communist forces in 1959. It attracted students from throughout the Tibetan cultural world and provided the model and the personnel for medical centres subsequently established at regional monasteries such as Tashilumpo (Shigatse), Labrang, and Chamdo.[36] The Regent Sangye Gyatso apparently intended that each major regional monastery should have the services of a Chakpori graduate. But it remains uncertain how many practitioners of *sowa rigpa* actually graduated from that institution, which seems to have gone into decline in the 19th century before being revived under the 13th Dalai Lama (*reigned;* 1895-1933).[37]

Outside of these monastic circles there existed not only local practitioners such as bone setters or ritual healers, but *amchi*, medical workers whose practice was, historically, outside of institutional settings. The authority of these individuals derives from their knowledge of the canonical medical texts of *sowa rigpa* and receipt of traditional teaching lineages of medical practice (deriving from famous physicians of the past, or transmitted in more localised and family traditions). *Amchi* may be distinguished from other practitioners by their knowledge of the *Gyü Shi*.[38] They were not necessarily professionals and it appears that many *amchi* understood their medical skills as a gift and their usage as a religious offering or obligation.[39] But while increasingly subject to contemporary anthropological investigation, historical studies of their role are lacking.[40] While never forming 'a homogenous socio-professional group',[41] and inevitably greatly varying in their medical knowledge and skills, it would appear that in the absence of a state sector, *amchi* filled an important medical role in Himalayan societies.[42]

The Tibetan medical world was not, therefore, an integrated system. Tibetan medicine was practised in complex and diverse ways and existed on a number of levels, with the elites and monastics (at least in major centres), having access to *sowa rigpa*, remote villagers and nomads resorting to local curing strategies loosely if at all linked to *sowa rigpa*, and the *amchi*'s practice situated somewhere in between these poles.

Sowa rigpa and other practices were not, historically, termed "Tibetan medicine", nor was their range restricted to Tibet. The term was used throughout the Buddhist Himalayas for the elite traditions deriving from the *Gyü Shi* and just as the term "Chinese medicine" was of Western derivation,[43] so too did the term "Tibetan medicine" develop only after the encounter with the European powers. It was never a term in common use during the British period – indeed I have not seen it used in official documentation – and its employment to denote the existence of a specific system of medicine actually appears to be a postcolonial development.

Given that both the term "Tibetan medicine" and its implication of a historical existence as a medical system are highly problematic outside of the modern era, I have avoided the use of the term wherever possible, although it remains a convenient shorthand that should be understood to indicate all facets of medical practice in the region. I reserve the use of the term *sowa rigpa* to refer to the elite textual tradition of medicine in the Himalayan Buddhist world, and I use the term 'Traditional Medicine' (i.e., capitalised), in reference to medical traditions systemised in the context of global modernity.

Sources; primary and secondary

The primary source records of the British colonial state that are preserved in the Oriental and India Office Library (London), the National Archives of India (New Delhi), and various Indian state and local archives form the main basis for this work. In addition, relevant private papers, correspondence, and published or unpublished memoirs by both Westerners and subject peoples were utilised, along with missionary archives, particularly those of the Church of Scotland Mission (Edinburgh). These archival sources have been supplemented by a series of interviews with relevant physicians, medical officials and their families carried out in India (particularly in Sikkim), and in Bhutan.

The usual caveats apply particularly in regard to the reading of colonial sources, which must be critically analysed not only through an understanding of the ideologies and perspectives they represent, but also of the bureaucratic and personal career strategies manifest there. Offi-

cial British-Indian reports are a particular genre. Optimistic in tone, and assuming a classical education, they allow scope for both discussion of problematic issues and possible solutions as well as subtle self-promotion by the writer. Taken together, the reports of a particular individual or school of thought can advance a consistent line of policy; equally, as will be seen, they can perpetuate myths and stereotypes.

While including attendance figures from the Gyantse and Yatung (Tibet) dispensaries as an appendix of lasting interest, we must caution that the available statistics are unreliable and provide little more than a general guide to conditions there. Previous studies have indicated the extent to which this is the case with other British colonial records and that unreliability was accentuated by conditions on the frontier.[44] In addition to the usual problems of context and doubts over the reliability of the information-gathering process, it should be noted that the available medical records rarely distinguish between genders, new and repeat patients, or races and classes. Furthermore, some of the local elites were treated in private consultations at their homes rather than in the British dispensaries and it is unclear whether these private consultations are included in the dispensary statistics. As will be seen, the records must be also read particularly critically in regard to indications of resort for particular conditions. In the wider context, the poor state of medical record-keeping problematises any close association of medicine in this region with the colonial knowledge-gathering project, which was otherwise prominent in regard to Tibet.

There is a considerable range of relevant secondary literature regarding Western medicine in Asia. Our current understanding of the process by which it developed in South Asia primarily derives from anthropological and historical studies undertaken since the late 1970s. Prior to that time Traditional Medicine was characterised as a largely static reservoir of archaic knowledge and practice that would inevitably be superseded by the scientific logics of the biomedical system.[45]

In the late 1970s, anthropologists began to challenge both this conceptual model and the dominant narrative of biomedical progress. Particularly influential was the work of Charles Leslie, who established two fundamental considerations; firstly that, 'Asian medical systems are intrinsically dynamic ... [and] continually evolving';[46] and secondly, that syncretism was historically characteristic of medical encounters there.[47] These conclusions were confirmed by studies showing the extent to which Traditional Medicine practitioners and their supporters had responded to the encounter with Western medicine through strategies of both adaptation and systemisation. Notable in this regard was Paul Unschuld, who examined the political and nationalist imperatives that historically determined the reconstructions and reinventions of "Chinese medicine". In concluding that, 'the alleged antagonism be-

tween a holistic-individualistic Chinese medicine and an ontological-localistic Western medicine is a drastic and misleading historical simplification of both traditions',[48] Unschuld's work highlights a process of reinvention and reconstruction with parallels in Tibet, India, and elsewhere.[49]

In demonstrating the contradictions and paradoxes within Traditional Medicine and its growing articulation and expression within nationalist systems, such studies provided a balance to the many critiques of the Western biomedical system that developed in the post-colonial period. They drew attention to universal tendencies such as claims to authority and efficacy, commercial and status imperatives, and increasing systemisation, which were shown to be characteristic of *all* medical systems. This wider perspective reflected the anthropologists' engagement within the actualities of South Asian medical worlds. But within the historical discipline, studies of modern South Asian medicine were dominated by more theoretical nationalist and post-colonial critiques.

In 1981, Daniel Headrick famously asserted that medicine was a crucial 'tool' for the expansion of British empire.[50] His conclusion was seminal in locating the newly-emerging historical study of imperial medicine in a political context from which until recently it has rarely emerged. This was accentuated by the work of Ian Catanach, David Arnold and others who demonstrated the contested reception of biomedicine in studies of indigenous 'resistance' to smallpox vaccination campaigns and to anti-plague measures in Bombay in the 1890s.[51] Arnold's work specifically explored the 'developing relationship between indigenous élites, subaltern classes and the colonial state',[52] and actually demonstrated the complexities of the indigenous reception of Western medicine and the many local variants in action and response throughout India.[53] But a tendency arose in less-nuanced studies to assume that resistance to biomedicine was a universal Indian phenomena. That conclusion, in conjunction with clear evidence that the imperial medical services in India were primarily concerned with the health of Europeans and their military forces rather than the needs of the general population,[54] situated South Asian medical histories in a highly politicised context. Biomedicine became a central feature of post-colonial critiques of empire that drew inspiration from the ideas of Foucault and Said, which emerged, specifically in the South Asian field, in the dynamic theoretical work of the "Subaltern Studies" school.[55]

These constrictive theoretical boundaries excluded the wider vision provided by the anthropologists' comparative studies of processes within indigenous traditions and as a result analysis of Western biomedical development in the colonial setting commonly reached negative conclusions. Ignoring fundamental aspects of imperialism such as cultural exchange and individual encounter, Andrew Cunningham and Bridie

Andrews, for example, used what they admitted was a 'relatively narrow' definition of imperialism ('the use of state power against foreign countries, for the purpose of winning economic advantage'), to define Western medicine as being 'imperialist as a form of knowledge and as a practice'.[56] They ignored studies demonstrating that Traditional Medicine is also used as an imperial device,[57] and failed to take into account the fragmented nature of the actual application of colonial power and the constant negotiations with indigenous interests that it demanded at every level of government. Consequently they formulated the introduction of Western medicine to South Asia as a process of 'confrontation' and 'contestation'.[58]

In this ideological construction the earlier paradigm of a static Traditional Medicine was inverted to portray a static Western medicine, defined as a system 'not open to alternative views', which could 'be practised only by true believers'.[59] Such narrow definitions, however, do not survive critical analysis because they ignore elements and processes common to all medical systems. They are also contradicted by studies demonstrating the willingness of Traditional Medicine practitioners to co-opt biomedical practices such as the taking of blood pressure,[60] the evidence that follows here for the recognition by the IMS officers of the necessity to make concessions to local cultural understandings, and by the growing acceptance by biomedical physicians in both Europe and Asia of the efficacy of "alternative" practices such as acupuncture and dietary restrictions.

Taken to their logical extremes, these tendencies to subjective theorising could result in findings that de-personalised the Asian subject in terms that recalled the Orientalist, if not racist ideas of the archetypal Victorian imperialist of popular imagination. Frédérique Appfel Marglin, for example, contended that rather than upsetting medico-religious customs associated with the 'smallpox goddess' Śītalā,[61] by introducing vaccination and consequently eliminating smallpox from the planet, it would have been better if 'smallpox could have been successfully controlled rather than eradicated'.[62] Even in the context of a provocative 'challenge' to 'the entire project of modernisation',[63] it is difficult to understand this contention as either representing indigenous perspectives or acknowledging the cross-cultural reality of suffering.[64]

While acknowledging the lack of historical sources concerning the perspectives and experiences of South Asian patients, the approach taken here is to regard illnesses as real sufferings for which people sought relief and cure. While a "grey area" exists in which definitions of illness and suffering are problematic or rest on cultural definitions, this was less apparent in the initial stages of the development of Western medicine on the Indo-Tibetan frontier. The focus then was on universally accepted medical conditions such as wounds, fractures, infec-

tions and epidemic diseases, conditions at what might be called the "core" of the new medical system.

The use of a simplistic domination-resistance model of imperialism in medical histories does of course support certain nationalist interests and mythologies. But an exclusive focus on the many evils and exploitations of Western colonialism in Asia not only obscures parallel exploitation within indigenous societies, but also continuities between colonial and post-colonial medical policies and their application.[65] In addition, as this work will indicate, areas such as the Himalayan Buddhist states by no means necessarily associated themselves with a concept of "India" during the colonial period. Resistance to local and national indigenous elites there may have been as, if not more, common than anti-colonial resistance. As indicated by studies such as those of Helen Lambert (also concerning a former Princely state), even today Western medicine's impact is limited in India, and patient's choices of therapy are based on a range of considerations which do not appear to include 'contesting' any particular system.[66]

Like British imperial authority, studies of South Asian medical history began with a focus on developments in the great metropolises; Bombay, Calcutta, Madras, and later New Delhi. As centres of both the European and indigenous populations these cities were the obvious location in which to concentrate medical structures, and as centres of colonial authority they were important sites for Indian nationalism to contest political power in a great variety of forums, including the medical. They were also bureaucratic centres of empire, generating the great bulk of what are now the archival sources for the study of British colonial India and its immediate neighbours. While these are all factors encouraging scholars to focus on developments in the urban centres of empire, the analysis of Indian medical history has, as an understandable result of this tendency, developed a centrist perspective. The core focus of enquiry has been on such issues as structural developments (in both Western and indigenous medical systems), epidemics as metaphors for colonialism, imperial medical ties with the British medical world and wider international debates over such issues as trade and public health.

While there is a growing body of anthropological studies on South Asian medical worlds outside of the urban centres, medical historians have neglected the imperial periphery. However, the frontiers of British India, particularly the northern frontier, were by no means peripheral to the colonial state. There was considerable economic and political investment in those regions to protect India from external threats – real or imagined – from Russia, and to a lesser extent from China, as well as localised dangers such as tribal raiders. Secure frontiers were also seen as necessary to develop not only trade but also national identity,

which was seen as a part of both the modernisation process and itself a factor contributing to secure frontiers.

Socio-political and environmental conditions on the frontier were very different to those at the imperial centre and the form which imperialism took there was specific to the region. As will be seen, the frontier was recognised as being a distinct region outside of India both in official attitudes and by the imperial officers who served there. Manners were less formal there, structures less bureaucratic, and individual relations with the local people less constrained by cultural considerations. As one of the architects of British policy in the region observed:

> A man, efficient in administrative work in India ... is not always the best for Tibet. We do not want the administration in these outlying diplomatic Agencies to be too bureaucratic, too much given to rules and regulations framed to meet ... Indian conditions. Tibet is very different from India, ... Tact and sympathy, and a capacity for getting on well with them, are the prime requisites for an officer serving among the people of Tibet.[67]

Analysis of these frontier regions is therefore, of crucial importance to a balanced history of the British presence in South Asia. This work attempts to counter the tendency to see the urban centres of empire as central or typical overall of what is now modern India (and neighbouring states). It does not necessarily contest existing understandings deriving from the centrist perspective, but rather seeks to indicate additional perspectives by taking into account the complex cultural and political negotiations and multilayered encounters that occurred on the frontiers of empire during the processes of biomedical development.

Despite continuing preoccupation with resistance, new approaches to modern South Asian medical history have recently emerged.[68] A series of studies have explored the history of specific diseases such as smallpox,[69] *kala-azar*,[70] and goitre.[71] These demonstrate the complex negotiations involved in preventative and curing strategies, disagreements within government about the blanket implementation of policy, the environmental issues involved, and the contributions of both imperial and indigenous individuals to the countering of these diseases.[72] In a wider sense, however, these narratives have also transgressed the existing divide between colonial and post-colonial studies, drawing attention to the many continuities in South Asian medical history, which will also become apparent in this work.

An understanding of the social processes involved in the adoption of biomedical practices in South Asia is still developing. But in the region under consideration, biomedicine in its early phase will be seen to have been adopted as an empowerment strategy by marginal groups such as

Eurasians, native Christians, and tribal peoples. Those marginal groups that were able to embed their members in powerful positions in the early phase of biomedical development were frequently able to establish their clan's continuing association with a medical occupation. In a hierarchical society influenced by notions of occupational caste group status, these clans were able to enhance their status on the basis of this establishment of "traditional" (albeit recent), occupational authority.

But in later phases of development, biomedicine became part of the existing elite's corpus of what we might call "useful" modernity. This comprised those innovations that came to be seen as specifically beneficial to the indigenous authorities, (or elements among those authorities), whether for personal or wider social benefit, or as a means of strengthening the social order. The elites who could afford to educate their children at the best schools in India were then able to establish themselves at the highest levels of the new system. In addition, the conversion of these elite groups resulted in their patronage of the system, which, while relieving the imperial power of financial burden also relieved it of responsibility. The indigenous elites (primarily the Himalayan Buddhist aristocracy), thus gained power with their acceptance of responsibility, but the non-elite groups were in many cases well-established by that time.

In embedding their new status within traditional occupationally-based social divisions, these groups enabled biomedicine to become an indigenous occupational category within Himalayan societies, just as *sowa rigpa* was an indigenous category. The result was that decolonisation neither fractured nor hindered biomedical development; groups who enjoyed growing medical power and prestige in the colonial period continued to do so after 1947. In the case of Tibet, the Chinese invasion in 1950 produced major fractures, but the pre-1950 aristocratic class has to a very large extent replicated its former authority in the Indian exile community.

Missionaries

One other development of considerable relevance to this work has been the recent emergence of studies focussing academic attention on the vast reservoir of sources available in missionary archives. Much of this material concerns local politics and society, and non-elite and marginal social groups otherwise greatly under-represented in the historical record. In that the biases and worldviews represented in the sources are frequently explicit, their interpretation and analysis is in many ways less problematic than official sources. But the overwhelmingly secular approach of Western academic historiography, which has relegated reli-

gion to separate disciplinary status, has been one of a number of factors that have made missionary studies deeply unpopular within academia.

There is, however, a growing body of analysis concerning the political context of missionary medicine,[73] to which this work contributes. In regard to Tibet, John Bray's work (see bibliography) has demonstrated how that ''Forbidden Land'' became a particular target for Christian missionaries, who established a chain of mission stations around Tibet's borders in preparation for a time when they would be allowed to evangelise there. These missionaries, however, tended to closely associate themselves with British or Chinese government attempts to gain control of Tibet, seeing that as the key to their access. That very association with external powers only increased Tibetan mistrust of their intentions.

Of particular significance in regard to medical missions in India is the work of Rosemary Fitzgerald, who has demonstrated that from the 1870s onwards, medicine increasingly became the key missionary conversion strategy.[74] Her work also brings out the missionary influence on the nursing profession in India; at the beginning of World War Two, 80% of Indian nurses had been trained in mission hospitals and around 90% of all nurses were Christian.[75] The consequences of this seem significant. David Arnold pointed out that in the transmission of; 'western ideas and practices ... to the indigenous peoples [the] doctor's race, sex and demeanour could matter as much as the therapies he proffered.'[76] Fitzgerald confirms that 'indigenous staff ... gave mission dispensaries and hospitals a less forbidding appearance; a hint of the familiar that might make these alien places more acceptable to potential patients'.[77] Thus it appears that the indigenisation of structures and personnel by the missionaries significantly enhanced the uptake of biomedicine.

While we may accept that the majority of missionary doctors were motivated by Christian compassion,[78] locating them as a bridge between races is problematic. They were not intermediaries translating one culture to the other. Rather they held strong prejudices against many aspects of local culture. Nor did they approach the local people as equals. Fitzgerald shows, for example, that the 'notion of a 'nursing sisterhood' was revealed as deeply flawed in its failure to transcend differences of class, race and nationality'.[79]

Yet missionaries were in daily contact with the indigenous peoples to an extent unmatched even by colonial officials. Unlike the IMS officers, who usually relied on translators outside of the Hindi-Urdu speaking regions, missionaries were required to be fluent in the local vernacular. They also held to an ideal of indigenisation and could represent indigenous perspectives to the colonial power, as Andrew Por-

ter has shown in regard to the extent to which missionaries actively resisted the late 19th century dominant ideology of European racial superiority.[80]

One approach to contextualising the missionaries' position in local society is to focus on the ethical context of doctoring and the construct of the ideal doctor in both cultures. The medical missionaries' charitable provision and (generally) high ethical and professional standards appear to have matched those of Buddhist ideals of the doctor. That shared understanding may have enabled the medical missionaries to be more easily integrated into local understandings than physicians who were secular agents of the state, for the latter context was unknown to indigenous culture. Here I suggest that in many senses long-serving medical missionaries of particular character could become a part of the indigenous histories and understandings of a region, whether their religion was acceptable or not.

Considerable work remains to be done on the missionaries, including critical analysis of their writings, before we can hope to reach conclusions concerning such complex issues as their relationship to imperialism.[81] We need to consider, for example, such diverse factors as their shared interests in modernity and "progress" on the Western model and the common projection of their casualties in the "heroic mode". But we may analyse the role of Christian medical missionaries (principally those associated with the Church of Scotland), in introducing and developing biomedicine in the Buddhist Himalayas. The missionaries were the initial force behind the introduction of biomedicine in places such as Chamba and Kalimpong and were also influential in southern Sikkim in the early period. Yet while they had provided educational and medical services there that Government was not prepared to finance, they were subsequently excluded from Bhutan and Tibet. While this was certainly in agreement with the wishes of those states, the missionaries could be forgiven for thinking that they had been effectively exploited by the imperial Government.

The Indian Medical Service and the Subordinate Medical Service

The key agents in the introduction of Western medicine into Tibet in the early 20th century were officers of the Indian Medical Service. That service only came into being at the end of the 19th century, although it had long antecedents. When East India Company vessels began sailing to India at the start of the 17th century, they employed "ship's surgeons", some of whom established themselves in South Asia where they treated both EIC personnel and local people. In 1645, for example, ship's surgeon Gabriel Boughton successfully treated a daughter of the

Mughal emperor Shah Jahan[82] (then occupied with the building of the Taj Mahal). But European and Asian medical practitioners then shared many understandings, such as humoral theory, and specialised foreign and indigenous types of knowledge were in communication. While the Europeans' novelty and areas of specialisation might attract local patients, these newcomers at best enhanced rather than challenged the existing Indic medical world. Many of the Company's personnel felt that Indian illnesses were best treated by Indian doctors, and as the ship's surgeons were generally of lower class origin, they were often looked down on by their fellow Europeans.

Given the EIC's status as a trading body, there was initially no question of the Company becoming involved in organised medical practice. But the growing military and political power of the British brought the need for such structural support, and in 1763 the Bengal Medical Service was established. Similar services were also founded in the Madras and Bombay presidencies, and in 1788 these services were reconstituted as primarily military agencies. After the events of 1857-58 (the "Indian Mutiny") they were brought under Crown control and separated into civil and military branches. Finally, in 1896, the three presidential services were amalgamated to form the Indian Medical Service, which employed around 600 medical officers at the beginning of the 20th century.[83]

Admission to the IMS was by examination, with candidates required to be British subjects aged 21-28, licensed under the Medical Act of 1858 to practice medicine and surgery. The service had an essentially military character. Its officers held military rank and were always liable for recall to military duty in times of war. New entrants were required to serve in a military post for at least two years before becoming eligible for a civil position, or for employment with other Government of India services. The Political Department was one such service, employing medical officers at dispensaries attached to the various diplomatic posts it maintained.

IMS officers joined the Political Department knowing that 'medical officers are attached to our Consulates and Agencies in remote localities primarily on account of political considerations'.[84] Their primary duty was to gain the goodwill of local societies by providing free medical services to all classes of people in the indigenous state. This use of medical officers in political and diplomatic roles actually had a long history in India, with the Mughals having used eminent *hakim*s as envoys, as did the EIC,[85] and even in the 20th century the Political Department occasionally used its medical officers to fill diplomatic posts. With the growing knowledge resources of European medical science, the IMS officers were increasingly seen as an important element of im-

perial power and prestige. Given these requirements, it was to be expected that a particular type of officer would apply for this service.

Mark Harrison has carefully analysed the social origins of European recruits to the IMS in the 1859-1914 period. He demonstrates that they were similar to those of other imperial services in that they included a disproportionately high percentage of Scots and Irish, frequently had family members in Indian service, and often followed the common imperial pattern of being Indian-born and British-educated. But IMS officers tended to be of more lower-middle class origin than their contemporaries in the Indian Civil Service or the officer class of the Indian Army, and in terms of social status in India as measured by the warrant of precedence, they ranked below those institutions.[86] Social status was of course a fundamental concern in British Indian society and Harrison concludes that while the IMS officer's lesser standing was partly a reflection of their comparatively lower class origins, the key factor reducing their prestige was that while 19th century ICS and Indian Army officers were Europeans, the IMS included Indians in its ranks.[87]

Qualified Indians were first accepted into the presidential services after 1855, but as the examinations were held in London there were few such applicants. Just eleven of the 376 IMS entrants in the 1896-1905 period were Indians.[88] Following the introduction of a quota system in 1905, the number of Indians in the IMS increased, and after the passing of an Indian Medical Registration Act in 1912, the requirement to travel to London for examination was soon abolished.[89] By 1938, Indians made up 37% of the IMS roll.[90] Yet Harrison presents evidence for a pervading anti-Indian prejudice in the service, which, as will be seen, is supported by the fact that Indian IMS officers were excluded from service in areas such as Tibet on the grounds that they could not maintain imperial prestige.

But Harrison's study is concerned with the pre-World War One period, and naturally his conclusions cannot necessarily be applied unproblematically to a later period. By the 1920s, all of the official imperial services accepted Indians into their ranks, destroying all but the historical aspect of the notion of a "purely European cadre" as a status basis. In addition, the status of the British medical profession in the early decades of the 20th century was considerably enhanced by both greater professionalisation and scientific progress, with the surgical skills required of IMS officers in Political employ particularly prestigious. These factors increasingly impacted on the social ranking of the biomedical physician in India in the 20th century and the extremely high social status of indigenous biomedical doctors in post-1947 India would appear to reflect certain continuities with the late colonial period.

Of considerable relevance to the status of the IMS officers discussed here was their association with the Political Department. While IMS recruitment from Britain declined after WW1, the "Politicals" were still able to attract some highly regarded physicians. Certainly in Tibet their status appears to have been higher than is suggested by Harrison's description of the post-1905 Indianisation policy as 'the final blow to the service'.[91] In the 1930s, for example, the long-serving Sikkim Political Officer Basil [later Sir Basil] Gould, whose concern with status was legendary,[92] rated very highly the IMS officer who accompanied him to Lhasa, Dr. Morgan. He described Morgan as, 'equally liked and respected by the greatest in the land and by the most lowly ... second to none of the Political Doctors I have met'.[93]

In concluding that the IMS was characterised by a 'pervasive anti-intellectualism, ... a climate in which innovation in theory and practice was positively discouraged' and that the 'narrow outlook of many of its officers encouraged fatalism and indifference to the plight of the Indian people',[94] Harrison's assessment of the IMS is reminiscent of Ian Copland's critique of the Political Department.[95] But the picture, in regard to the later period, may be more complex than these studies suggest. Just as I have argued in a previous work that Copeland's conclusions cannot be applied to the Political Officers who served in Tibet,[96] the medical officers with whom we are concerned in this study overall appear to have been more open-minded, intellectual in outlook, and professionally skilled than Harrison's conclusions would allow for IMS officers in general in the earlier period.

This study deals, however, only with a small group of IMS officers who were accepted into the Political Department and posted to Tibet. By the 20th century, the Politicals, both in their own view and in terms of precedence, enjoyed the highest status of any of the imperial services. Its officers were almost invariably educated at the best British public schools and universities or military colleges before serving, generally with some distinction, for at least five years in the Indian Army or the Indian Civil Service. The service attracted ambitious and adventurous men with great faith in the concept of British empire. While generally outdoorsmen, skilled in riding and fond of hunting, they also possessed the necessary social skills for diplomatic intercourse and intellectual abilities for intelligence-gathering. They saw themselves as an elite, and recruitment was characterised by nepotism; a reference from an experienced member of the Political Department was almost essential for consideration. Each individual selection for the Department was personally approved by the Viceroy of India, which further enhanced their status.

Thus in joining the medical corps maintained by the Political Department, IMS officers may have been actively seeking to improve their

social status, as well as opting for a more unusual or adventurous career setting. The IMS officers who served in Tibet did deliberately cultivate their status through such symbolic actions as wearing military uniform as their normal apparel. Dr. Kurian, for example, recalled that the 'concern with status in the IMS could be compared to that of the Indian Political Service, with maintenance of prestige an important factor in their work'.[97]

Of course British-Indian concepts of prestige did not necessarily register with the Tibetans. One recalls that British prestige was enhanced not by uniforms but because a medical officer

> was a very fine swimmer and had a reputation for this all over Lhasa. He was the only man who dared to dive into the turbulent waters of the Tsangpo river during the summer month, when it is swollen by melting snows. Thus he did much to enhance the prestige of the British people.[98]

One notable characteristic of the doctors who sought Political Department service was that in stating their preferred choice of four possible areas in which to work, the 'Upper Provinces', which included the Punjab, was the most popular choice, with Bengal and Assam the least popular.[99] This mirrored Political Department traditions in which the Punjab ranked as the highest status posting, with what P.H. van den Dungen termed 'The Punjab Tradition' firmly part of the greater Political Department identity.[100] This preference for the Punjab suggests a search for enhanced status as well as a desire for the active and adventurous service that by the 20th century was to be found largely on India's frontiers.

This is in contrast to Harrison's findings that the most popular province for IMS recruits generally was Bengal, 'until 1911 ... the hub of European culture', and the province offering 'the most lucrative opportunities for private practice'.[101] While the comparison is not an exact one, it is nonetheless an indication that the Political doctors differed from the norm in seeking more exotic society. Given that in postings such as Tibet they had little or no opportunity for private practice, it also suggests their lesser concern with financial gain. These qualities did not necessarily equate to a higher than average professional performance, but of greatest importance to the Political Department's assessment of them was their performance in the political sphere; their ability to "get on" with the Tibetans and to project British prestige in the desired manner.

Finally, in regard to status, the question of race in the Political Department was more complex than concerning other services. On the one hand, it was a determinedly European service with indigenous re-

cruits excluded for as long as possible.[102] In selecting IMS officers for Political employment the Department had, in the latter part of the 19th century, required candidates to sign a declaration that both of their parents were of 'unmixed European blood'.[103] On the other hand, as an explicitly elitist service charged with dealings with local and neighbouring state elites its ranks had always included individuals who were employed on account of their expertise in regard to particular remote regions rather than racial qualification. Historically, this had meant that Eurasians were occasionally employed, and in the 1904-47 period several Eurasians and Himalayan Buddhists were given Political Department posts on the Tibetan frontier, while the Civil Surgeon in Gangtok was usually, if not always, a Eurasian. However, for most of the 1904-47 period, the senior medical posts in Tibet remained in British hands and even in the junior positions Hindus and Muslims were excluded from employment there. This policy was clearly articulated in terms of status, as will be seen.

In addition to the IMS officers, the Subordinate Medical Department's less medically-qualified sub-assistant surgeons (known until 1910 as hospital assistants), were employed in Sikkim and Tibet in a supporting role. These men generally held a Licensed Medical Fellowship obtained after three years of study, raising them above the ranks of compounders, the lowest level of qualification. The Subordinate Medical Department evolved from the EIC's use of Indian medical assistants and was developed in both civil and military sections in the Bengal, Madras, and Bombay presidencies until the three departments were amalgamated in 1895 to form the SMD. While the majority of the early recruits seem to have been Eurasian and native Christian youths, the Department also included Indian-born Europeans and increasingly became the primary outlet for most Indians taking up biomedical practice.[104] In the region under consideration, SMD personnel were employed at all of the government dispensaries. Sikkimese Buddhists established something a monopoly on the Tibetan positions, as will be seen, and were able to use their positions as intermediaries to advance their social status under colonial rule.

Frontier medicine

Surgery can be seen as a separate system to biomedicine; one of direct bodily intervention in contrast to non-invasive curing strategies. It can also be seen as a higher system; when biomedicine fails, surgery is the final resort. Certainly, during the period under consideration, the practice of surgery enjoyed a particular heroic status; it was, we might say, at the cutting edge of biomedicine. What W.F. Bynum termed 'the cult

of the surgeon'[105] had developed during the 19th century when an understanding of the need for aseptic conditions rapidly improved survival rates and opened up new possibilities for advanced surgery. This was of obvious relevance to the military, and the IMS officers with whom we are concerned were qualified surgeons aware of the value and status of that practice. It was 'the ultimate weapon and the mission doctor's greatest tool' and without it medical practice could be found 'unexciting and even uninspiring'.[106] If their diplomatic employers were primarily concerned with the IMS officer's political performance, their surgical abilities were a major factor in their fellows' assessment of their professional performance.

The frontier environment in which the IMS officers practised only enhanced this focus. Christopher Lawrence has described how contemporary American surgeons considered their art had been perfected by 'what they considered quintessential American traits; individualism, democracy, inventiveness and heroism'.[107] But in British India these were not seen as American traits , but characteristic of frontiersmen in general. By quietly emphasising their 'heroic traits' in reports and correspondence the IMS officers improved their status by associating themselves with the ideal of the frontiersman as understood by their Political Department employers.

European medical discourse was also linked to the frontier ideal through the existence there of medical practices that were outside of both Western and Asian systems. Those practices, or 'roadside medicine',[108] cannot be subsumed under either the category of 'traditional' nor of 'scientific' medicine, though they might embrace elements of both. Yet neither can they be classified as 'quackery' in that their application apparently derived entirely from empirical evidence of efficacy. Floating free of conceptual boundaries, their remedies were not found in textbooks, nor was their application restricted to medical practitioners. This form of medicine, embracing both human and veterinary subjects, appears to have escaped academic attention, at least in the Asian context.

Roadside medicine as a form of curing was characterised by the pragmatic use of whatever materials might be available. Examples include garlic to cure the ammonia poisoning induced by the smoke from yak dung and bone fires, or butter and salt as a cure for gingivitis.[109] While these may have been traditional Tibetan remedies, the products of Western modernity might also be medically utilised with considerable ingenuity. Muleteers, for example, broke open old torch batteries and used the residue to treat saddle sores on their mules,[110] although a British officer preferred Vaseline mixed with iodoform – 'an absolutely perfect dressing for horse's sore backs'.[111]

Roadside medicine could also involve some element of risk, as in the case where the American medical missionary Dr. Albert Shelton successfully treated a fellow missionary for typhus by stimulating his heart 'with injections of whiskey behind his breastbone'.[112] Less dramatic, and simpler in application was, 'a very simple and effective remedy for snow blindness ... a few drops of castor oil into the eyes and the relief is almost instantaneous'.[113]

Such treatments were specific, and as such were distinct from the kind of generalist treatment suggested by the missionary epitome, 'an aspirin for all pains above the waist and Epsom salts for all below'.[114] They were also wider in application than is implied by the term 'Household medicine'. Nor was the efficacy of roadside medicine dependent on the authority of a national medical tradition or cultural power. European travellers frequently reported the popularity of almost entirely spurious medicines they dispensed, as in the case of one who had only liver pills to treat patients, but found; 'Amazing cures were wrought by this means. Sufferers with anything from rheumatism to Asiatic sores returned to say how much better they felt.'[115] Roadside medicine, however, was cross-culturally efficacious. While difficult to conceptualise under existing models of medical systems, it may be best located within the concept of 'the Frontier' as a liminal zone characterised by its inhabitants' qualities of self-reliance and innovation.[116]

Environment

In a document dating to around the 9th century C.E., Tibetans described their land in the following terms:

> This centre of heaven
> This core of earth
> This heart of the world
> Fenced around by snow mountains
> The headland of all rivers
> Where the peaks are high and the land is pure.[117]

The understanding of Tibet as a land of 'high peaks, pure earth' (*ri mtho sa gtsang*),[118] acquired a Buddhist framework in the 7th through 10th centuries, in which Tibet was understood as a protected 'field' of the Boddhisattva Avalokiteśvara. The auchtononous spirits of place were reconceptualised as having been converted to the service of the new faith, and a network of sacred Buddhist spaces was overlaid on an earlier sacralised landscape, forming a complex pattern of places empowered by both local and trans-regional deities. But despite their sub-

jection within a Buddhacised realm the capricious spirits still required propitiation, without which they might induce illness and disease.[119]

Yet, alongside this concept of other-worldly disease causation, environmental determinism was recognised in such popular understandings as the Indian plains as a reservoir of infections. A similar situation existed within Indic culture, where indigenous understandings of the environment seem to have centred more on a conceptual divide between the purified 'known' and the impure 'wilderness'.[120] While the concept of other-worldly disease causation was widely embraced, an association with climate, season, and environment was recognised in the classical texts of Āyurveda.

The early Europeans in India understood the environment as a primary factor in disease causation.[121] This was manifested in the recognition of a distinct tropical environment, one which included healthy and unhealthy localities. This construction was closely associated with the wider issue of whether India was suitable for long-term European settlement. It was also linked to the need to maintain healthy military forces, something which became of particular concern during the 19th century. It was in the context of these issues that imperial political and cultural centres ('hill stations'), began to be established in what were regarded as the healthier mountainous regions of India.[122] It was believed that the mountains offered a place where troops could remain healthy and European settlers might thrive; of Darjeeling it was said that the, 'thin, pallid and peevish child is not long [there] before becoming fat, rosy and active'.[123]

The discovery of bacteriological disease causation transformed ideas of the role of environment, bringing, as David Arnold put it, 'a shift away from the environmental paradigm that had dominated nineteenth-century medical thought'.[124] But environmental determinism lingered on into the 20th century and the Himalayas retained specific imaginal and clinical disease associations throughout and after the colonial period. Certain paradoxes were inherent in both imaginal and clinical understandings.

From the time of the earliest explorations there in the 18th century, imperial officers described the Himalayas as a healthy environment where one might find a climate that was 'decidedly beneficial',[125] with 'an abundance of very pure water'[126] and plenty of fresh air.[127] This environment was conceptualised as productive not only of a physically healthier race, but of peoples whose morality and culture was superior to those of the plains. Believing that there was 'assuredly morality in the oxygen of the mountains',[128] the British contrasted what they saw as the 'feeble bodied and meek spirited native of Bengal' with 'their active and Herculean neighbours' in the mountains.[129] Overwhelmingly, those who served there preferred the environment, peoples, and cul-

ture of the Himalayas to that of the Indian plains, and they drew a sharp distinction between the two; they did not consider the Himalayan states to be part of India and saw themselves as diplomats serving beyond the Indian frontier.[130]

This positive view of the Himalayas was a sentiment that became more, rather than less pronounced in the 20th century. A major factor in that change was the carnage of the 1914-18 war, which raised doubts about the value of Western civilisation when contrasted to the apparently pastoral calm of Himalayan Buddhist societies.[131] (Three of the five Sikkim Political Officers in the 1921-47 period had seen active service in World War One, as had a number of the medical and military personnel.) As a consequence, by the 1940s the British were as concerned with preserving the existing Himalayan culture as they had been in the earlier years with modernising it.[132]

Accentuating this understanding of our region was its status as a frontier. While there was an alternative discourse of degeneration as characteristic of frontiers, the concept of 'the frontier' in British India implied a healthy location both physically and morally. These understandings were shaped both by ideas of the American 'West' and by a heroic mythology of empire, both of which privileged the frontier as a location where individual initiative and character were more important than bureaucratic rules and regulations. In this construction, not only were the local people superior to their equivalents on the Indian plains, but so too were the imperial frontiersmen superior to their more bureaucratically inclined colleagues in the urban centres of India.

There was a political context to this construction. As a part of their strategy of alliance with the Himalayan elites, the British frontier officers cultivated a positive image of the region, particularly in the case of Tibet.[133] Both the presentation of that image, and the generally favourable impression of Tibetan people and society formed by the officers who served there, meant that the 'disease=backwardness' equation was not located in a political context as it often was in British India. While venereal conditions were something of an exception, disease was not generally associated with Himalayan Buddhist culture in the negative manner in which, for example, cholera had been linked to Hindu pilgrimage practices in 19th century India.[134]

We may see biomedicine as a symbol of colonial relations in the Himalayas. With little or no need for the physical separation arising from 'fear of catching native diseases',[135] after the Younghusband mission, there was a distinct Himalayan form of imperialism that appears less exploitive and culturally confrontational than in British India. The British relationship with the Himalayan peoples in the 20th century may be best described as 'paternal'.[136] There was considerable admiration for many aspects of the local society and social relations with the indi-

genous people could be far less formal without the barriers to social intercourse created by Hindu caste restrictions and Islamic *purdah*. Nor were relations with Tibetans, or even Sikkimese and Bhutanese, subject to the same colonial and racial power relationships that characterised social intercourse in British India. In the course of the 20th century, the rise of anti-colonial feeling was particularly marked in Bengal, and the British found their reception in the Himalayas, where the independence movement had little strength, a welcome contrast to the hostility that prevailed on the plains.

Yet paradoxically this mountain idyll had particular dangers. Aside from the ubiquitous 'slimy slug-like … hideous' leeches,[137] the Himalayas were home to 'tigers, leopards and bears … very numerous and exceedingly destructive'.[138] There were floods, landslides, and earthquakes such as that in Kangra in 1905, which destroyed the small McLeod Gang hill station and nearby cantonment, while soldiers needed bamboo huts, not tents, to cope with an annual rainfall of 300 inches in Sikkim.[139] On the Younghusband mission there were 202 deaths 'due to climate', while only 161 were killed or wounded in action.[140] Nineteen deaths were directly attributable to altitude, with the sickness which had once been understood according to miasmic theories as due to 'bad air' recognised by the end of the 19th century as being due to the decreasing amounts of oxygen available on ascending the mountains.

In Tibet, the paradox seemed even more extreme. The high altitude and the bitterly cold winters took their toll of European visitors. An American traveller who died of pneumonia at Gyantse shortly after a British post was opened there in 1904 was only the first of a number of Europeans who died in Tibet.[141] Several of those who served there also left on medical grounds, despite having passed a strict medical examination before appointment to Tibet. While the natural environment seemed pristine, Phari, the first town on the Tibetan plateau en route from Gangtok to Gyantse and Lhasa, stunned European travellers with its streets, 'so choked with the accumulated garbage of centuries that they are many feet higher than formerly', and it was invariably described in such terms as the 'filthiest town in the world'.[142]

While it was not considered noteworthy in the 18th century, by the 20th century the fact that Tibetans rarely bathed had become notable, indeed, another clique in traveller's accounts of that land. However, after the Younghusband mission, Tibet was not represented in medical or other literature as a dangerous or unhealthy environment in terms of disease. On the contrary, it was observed that the Tibetans appeared a healthy race, and that many of the diseases that ravaged India were absent there. This was partly due to ignorance of the apparently extremely high child mortality rates there. But it was also due to 20th cen-

tury biomedical understandings of disease causation which recognised that the cold helped, 'the defence against infective illnesses, by rendering garbage innocuous and making life hard for bacteria and parasites at large'.[143]

In the absence of associations of disease with Himalayan culture and with the prevailing belief in the region as a healthy environment, there was a growing emphasis on the Himalayas as presenting a logistical challenge to biomedicine. There was a necessary dependence there on outside products and technologies, and it was, for example, extremely difficult to bring safely from Calcutta medicines that had to be stored at a particular temperature. Equally, it was a major challenge to transport sensitive medical equipment across the Himalayas and operate it without technological support systems, not least established electrical supplies. Such logistical problems encouraged a practical rather than theoretical approach to biomedicine, stimulating phenomena such as Roadside medicine and encouraging the indigenisation of biomedicine through the blurring of its boundaries.

The environment also imposed a clinical frontier of distinct zones of disease. Approaching the Himalayas from the south, the traveller passed through the 'fever-ridden terrai', where malaria and *kala-azar* were endemic.[144] As the Himalayas were ascended, the risk of these fevers diminished with the increased altitude, malaria was not found above 5,000 feet, and *kala-azar* too reached only into the foothills. But new diseases appeared in the hills, goitre, for example, was endemic in many of the mountain valleys of the Himalayas,[145] and tuberculosis became increasingly common. Above 10,000, feet travellers were liable to be afflicted by altitude sickness, snow blindness, and severe sunburn. Thus a correlation between disease and location was demonstrated, although this was increasingly shown to be related to a variety of dietary, economic, and social conditions, as well as climatic and ecological factors.[146]

It is difficult to isolate Himalayan parallels to studies demonstrating the 'fatal impact' of European expansion on local populations in such places as the Pacific islands and the Americas.[147] Nor are there obvious parallels to those showing how in British India the spread of diseases such as malaria was stimulated as a consequence of environmental changes induced by canal-building.[148] A.K. Datta notes that *kala-azar* was known in the Garo hills as 'British Government disease',[149] but on the Indo-Tibetan frontier a negative imperial impact on indigenous health patterns, while difficult to assess in the absence of any pre-colonial statistics, seems limited. There are no indications that new diseases developed in this region as a consequence of European contact. Although the influenza pandemic of 1918-19 affected the entire region, Tibet was crossed by trade routes that linked it into a wider economic

world, and any or all of the trading groups could have been the causative agents of its introduction.

While the development of forestry resources had long-term environmental consequences, if we are to isolate a negative European health impact in this region, it would be the growth of tobacco smoking. This aroused elite cultural opposition in the Buddhist Himalayas, with the smoke considered offensive to deities, and as early as the 1640s, Bhutan became the first state to attempt to restrict its use.[150] But while both Tibet and Sikkim sought to ban tobacco in the 20th century, its use there had rapidly been indigenised and incorporated into local economic networks. Only in the controlled environment of the monasteries was it possible to effectively suppress its use, and its popularity among the lower social classes despite elite religious objections may hint as much at class tensions in Himalayan societies as it does at the addictive nature of tobacco.[151] Interestingly, despite their own tobacco addictions, British officials in the Himalayas supported a ban on tobacco, seeing it as an unwanted consequence of modernity. In contrast, they had little to say about indigenous use of cannabis or opium, both of which were sold legally in Sikkim and Darjeeling during the colonial period, albeit their use was almost unknown among Tibetan Buddhist groups. While cannabis and opium use have subsequently been criminalized, tobacco-smoking persists in the Himalayas, albeit in the face of social sanctions and, in Bhutan, determined efforts to eliminate the practice.

1 Missionary Medicine and the Rise of Kalimpong

Christianity recognises no worldly boundaries to the spread of the Faith and its missionaries' dreams of converting the Tibetans can be traced back to the late 8th century. The then Patriarch of the Nestorian Christians, Timothy I of Baghdad, considered that little-known land to be under his jurisdiction and moved to appoint an apostolate to Tibet.[1] But while Nestorians, and later Catholic emissaries to the court of the Mongol Khans, may have reached the fringes of the Tibetan world, the first recorded direct encounters between Christian West and Buddhist Tibet were not until the 17th century.

Following rumours of a lost Christian kingdom in the Himalayas, Jesuit monks made concerted efforts to penetrate Tibet and they established a mission at Tsaparang in western Tibet from 1624-40. Two Jesuits also travelled through Bhutan to Shigatse in central Tibet in 1628, and in 1661 the Jesuits Grueber and d'Orville became the first Europeans known to have visited Lhasa. In the early 18th century, the Jesuit Ippolito Desideri remained in Lhasa from 1716-21, by which time the Capuchins had established a mission there which functioned intermittently between 1707 and 1745.[2] As will be seen, the Capuchins found their rudimentary medical knowledge a useful means of gaining support from their hosts, although more than a century was to pass before this became an explicit missionary strategy.

Tibet was then open to any foreigners able to overcome the logistical difficulties of travel there, and in the 18th century, Dutch and French traders reached Lhasa, while British East India Company emissaries were entertained in Shigatse. But the closing decades of that century witnessed the increasing suspicion in Asia of the growing power of the European nations. When the Nepalese invaded Tibet in 1788 the British were suspected of aiding them, and in 1793, after the Qing Emperor's armies had expelled the Nepalese, the Manchu dynasty establish its political authority over Tibet and closed its borders to Europeans.[3] While Chinese authority over Tibet weakened over the next century, the two governments co-operated in maintaining this policy of isolation until it was temporarily ended by the Younghusband mission of 1903-04.

Paradoxically, Tibet's policy of isolation only served to increase its appeal to the West. The 19^{th} century was a 'Golden Age' of European exploration in which a genuine spirit of enquiry combined with scientific, technological, and imperial advances to enable Europeans to reach the remotest corners of the globe. Explorers became the subject of a heroic discourse expounded in the popular media, winning both fame and fortune through their endeavours. In this milieu the 'Forbidden Land' of Tibet became an increasingly attractive goal. Its very isolation fostered the development of 'Mythos Tibet', an imaginative construction of a land of mystery and magic, a place where esoteric knowledge was preserved and cultivated. New spiritual movements such as the Theosophists drew on and enhanced this construct, which only added to Tibet's appeal to European explorers.[4]

In conjunction with these imperatives, political and economic interests also stimulated approaches to Tibet. Protecting the commercial interests of the East India Company increasingly drew the British into a military and political role in the Indian sub-continent. Within the wider context of European ideas of the benefits of free trade and communication between nations, Tibet's isolation increasingly came to be seen in India as anachronistic. As British power over India reached its heights towards the end of the 19^{th} century, Tibet's isolation, and refusal to enter into diplomatic intercourse with British India seemed an insult to the prestige of an increasingly confident Empire, while the ideology of 'free trade' demanded that Tibetan markets be opened to Indian goods. With the construction of a 'Russian threat' to British India via Tibet, the stage was set for the Younghusband mission to end Tibet's isolation. No group more eagerly supported this opening of Tibet than the Christian missionaries, who viewed it as the key to obtaining access to the 'Forbidden Land'.

While Christianity in India had a long history and had been firmly established in Goa under Portuguese colonial rule, it was not until after restrictions on their activities in Company territory were relaxed in 1813 that significant missionary activity developed in British India. While there was an early Evangelical influence on imperial government, the revolt of 1857-58 in north India was an indication of how finely balanced was the Indian social system, and imperial officials were subsequently more cautious in the explicit promotion of Christianity. Fearing civil unrest, even serving officials who were practising Christians would often resist any expansion of the Faith in their domain, as will be seen. But the imperial government often discovered that missionary and imperial interests coincided, while missionaries could draw on considerable moral and financial support at 'home' and were skilled at exploiting the political advances of the European powers to further their interests. The relationship between missionaries and the

imperial government and its officers was thus a complex and varied one, effectively negotiated at the local level.

As Rosemary Fitzgerald has demonstrated, missionary endeavours were focussed on preaching the Gospel until at least the mid-19th century. But it became increasingly apparent that the evangelical approach was failing to produce significant numbers of converts and there was a growing debate among missionary strategists over the most effective means of winning converts.[5] Healing the sick had been an important part of Jesus's ministry and service to the suffering was an established Christian ideal. There was, therefore, a tradition of healing associated with Christian mission that began to take on a particular context in the light of this debate.

Drawing on the practical experience of missionaries in the field, missions began to focus on two 'tools'; education and medicine, and in the last decades of the 19th century these systems were accepted as an integral part of the missionary enterprise.[6] By the end of the century, it was a firmly established principle that schools and hospitals made up, with preaching, 'the trio of great evangelistic agencies',[7] and pioneering missions inevitably established schools and hospitals alongside their mission stations. While our focus here is on medicine, it is important to remember that the two 'tools' were closely related, not least because those who had received a Western education at mission schools were to be at the forefront of the indigenous development of Western medicine.

Pupils at mission schools were not only taught the conceptual framework that underpinned the new medical system, they were able to observe its efficacy (or otherwise!), first-hand, for they had their illnesses treated under that system and their behaviour shaped by its understandings. They learned about hygiene and preventative medical strategies such as public toilets, boiling water, and the use of mosquito nets, innovations that produced changes in indigenous domestic and public space practices, bringing them more in line with European norms. Indigenous cultural understandings and practices were thus challenged and fractures in cultural transmission induced, a necessary precursor to the adoption of both Christianity and Western modernity. But while these pupils were subject to a coercive regime (particularly at boarding schools), it must be remembered that they did not necessarily respond to any or all of these teachings, just as they did not necessarily convert to Christianity. Perhaps the most significant understanding they gained was that the power of Western medicine was not an exclusively European colonial possession, but a universally applicable power obtainable through advanced education.[8]

In order to spread the message most widely the vernacular languages were considered the most appropriate for Christian instruction,

but English was also taught, and became the language of advanced instruction for the more promising pupils. Curriculums varied according to the expertise of the teachers, but tended to be broad, and conceived of in terms of evangelical impact. Christianity could be imparted as an implicit element within that instruction; English lessons could, for example, be centred on Biblical texts, while the teaching of history introduced dating on the Christian calendar. These were not only conversion strategies but elements in a new lifestyle. Christian missionaries attempted to build up a complete social system in which converts embraced a new worldview imparted by their education and entered professions associated with Christian society and ideals – the church, education, and medicine. In an early example from the region under consideration, for instance, Dingbu, a local convert (probably Lepcha), was trained as a compounder at the Charteris hospital in Kalimpong with the support of the St Stephen's Guild in Edinburgh. He was later employed as both a compounder and a catechist at Nimbong and Pemling in Kalimpong district.[9]

While comparative studies are lacking, the Christian worldview imparted at mission schools may be distinguished from the secular scientific modernity that was increasingly being made available through government educational initiatives. The missionaries mediated that modernity through a religious worldview and social framework which may have proved particularly appropriate for the outcaste and tribal groups that made up the overwhelming majority of Himalayan Christian converts. These groups were able to advance their social status considerably as a result of their knowledge of Western systems, which qualified them for employment at the schools and dispensaries established by the missions and government. Similarly, the education of women produced a new class of literate females who were to create new economic spaces in Himalayan society as nurses, teachers, and clerical workers. Existing gender relations were thus irrevocably altered by the new missionary strategies, with women able to enter (comparatively) powerful positions in biomedical structures. In conjunction with similar developments, predominantly in urban areas, where education and public health initiatives were introduced by colonial government, the indigenous spheres of education and health were radically, indeed totally, transformed.

While these radical developments had begun earlier in the urban centres of colonial India, they were late 19th century phenomena in the Himalayan regions under missionary influence, as indeed was the development of the category of 'medical missionaries'. Missionaries posted in remote regions had always been expected to treat themselves and their families when they fell ill, just as they were expected to educate their own children.[10] But while there had been early missionaries

who happened to be physicians, the advantages of specific medical missionaries seems to have been first articulated by Elijah Bridgeman, an American missionary in Canton in the 1830s. Impressed by the ability of European physicians to gain access to Chinese society through their medical work, Bridgeman appealed for an eye surgeon to be sent to a mission dispensary in Canton, resulting in the arrival of a Dr. Peter Parker in 1834.[11] Parker was then involved in the establishment of the Medical Missionary Society in China in 1838,[12] and also in what became the Edinburgh Medical Missionary Society. The first of its type in the UK, the Edinburgh Society was founded in 1841 after Dr. Parker had lectured there.[13]

The first qualified British medical missionary appears to have been William Lockhart of the London Missionary Society (LMS), who was sent to China around 1838-39.[14] But medical missionaries took time to win acceptance. Not only was the missionary movement divided over the appropriateness of fully embracing medical work, but Western medical knowledge at that time was insufficiently advanced for the system to be clearly superior to indigenous practices. The earliest anaesthetics, for example, only came into use in the 1840s. Yet a demand for missionaries to provide medical services was clearly apparent; at a conference in 1889 a missionary testified that; 'I was forced to be a Medical man as a Missionary in Burmah by the people themselves ... the people came and demanded that they should have medicines for their diseases.'[15]

The frequency with which such statements appear in missionary accounts from all parts of Asia indicated to the missionaries that a genuine demand for their medical services existed, although it may equally reflect indigenous understandings of the role of religious functionaries, which in the local cultures embraced healing practices. But the extension of medical services to their host communities was also a practical response to isolation by the missionaries when there seemed no other avenue from which to penetrate local society. It was the effectiveness of medicine – and education – as tools for gaining access to the indigenous peoples that alerted the missionaries to their use as a conversion strategy which was within Christian ideals of charitable service.

Yet this was an era of growing professional specialisation; in Britain for example, the Medical Act of 1858 enforced the registration of medical practitioners, and medically unqualified missionaries were increasingly conscious of the amateur nature of their practice. As Western medicine developed, and, in the wider context, growing power differentials between coloniser and colonised emerged, indigenous medical practices were increasingly stigmatised and missionaries, themselves anxious to avoid accusations of quackery, recognised the need for trained physicians to provide medical services at the missions.[16]

The demand for medical practitioners was also stimulated by the missionaries' desire to contest power with indigenous religious specialists, who, in the local medical worlds were consulted in cases of sickness. Missionaries believed that on an empirical field they could prove the superiority of the medicine of the Christian West, a victory that would equate to a religious victory, a demonstration of the power of Christ over local deities. Furthermore, they considered that patients thus cured would be more likely to accept Christianity after witnessing that power.[17] This desire to engage indigenous religions in the medical field increased as the rapid development of medical science from the 1870s onwards greatly expanded the efficacy of Western medicine, increasing the 'power' available to the missionaries.

The importance of these late 19th century developments in Western medicine cannot be overstated here. The discovery of bacteriological disease causation fractured humoral understandings once shared with Asian medical thought, and enabled the conquest of infectious diseases that had formerly decimated local (and European) populations. Western medicine already had considerable appeal, but the enormous advances in curative power in that period transformed the competition with local practices.

As a consequence of these new powers and strategies, the number of medical missionaries rapidly increased in the late 19th century. In 1858, there were just seven from all denominations in India and China. By 1882 there were 28 in India from Protestant denominations alone, and by 1895 there were 140, a figure that doubled in the next ten years.[18] This was also a period in which women became increasingly prominent in the field. When the American Dr. Clara Swain arrived in India in 1869, she was the first fully-qualified female medical missionary there,[19] and the first British woman followed only in 1880. But by 1900, female medical missionaries outnumbered males in India and twelve years later 217 of the 335 medical missionaries in India were women.[20] While women were not generally socially excluded in the eastern Himalayas, elsewhere in India these doctors played an important role in providing medical care in the harems and *zenanas* of Islamic and high-caste Hindu society. In the Himalayas they were particularly prominent in regard to pre- and post-natal care, which (in the Western sense of medical intervention) appears to have been almost entirely absent in the local societies.

While tensions remained between evangelising and medical branches of the missionary enterprise, medical missionaries enjoyed the support of many who otherwise questioned missionary work, and they were portrayed in a heroic mode not only in Church discourse, but also in popular media outlets. Their endeavours were supported by a network of sympathisers and patrons both in India and the UK, and

missionaries on furlough made speaking tours of these support groups, describing their work in the field and appealing for additional funds and manpower. One result of this was to stimulate a globalised consciousness, with individual donors in, for example, a small village in Scotland, being made aware, via the missionaries, of individuals in India helped by their donations. In turn, the beneficiaries were made aware of their participation in a wider Christian community. In remoter regions such as the Himalayas, these trans-national links predated the development of an Indian national consciousness and may have acted as a factor preventing the development of the close association between nationalism and medical systems that occurred in India.

Ultimately the use of Western medicine did not produce the mass conversions that missionaries had hoped for. Patients proved able to separate Western medicine from Christian teaching and the optimistic tone of late 19th century missionary discourse faded, as did 'Home' support for medical missions.[21] This can be seen within the wider context of Orientalism; a naïve assumption that some element – be it command of information, religion, or indigenous language – was the key to understanding South Asian societies.

Early missionary approaches to Tibet through the western Himalayas

Just as the imperial Government was increasingly drawn into involvement with Tibet, so too were the missionaries. Protestants were foremost in this development in India; there were few continuities with the earlier Jesuit and Capuchin activities in the region, which were almost forgotten in India.[22] But Catholic efforts to proselytise in Tibet continued in China after the Vatican transferred responsibility for mission work there from the Capuchins to the Paris-based Société des Missions Étrangères (SME) in 1846. The first SME missionary visited eastern Tibet in 1847 and a mission was established at Bonga in southeastern Kham in 1854,[23] one link in a chain which would, within two decades, encircle Tibet. As will be seen, numerous other missionaries were also to base their efforts around the eastern approaches to Tibet, while still others sought to reach Tibet from the north and northeastern approaches. But in India, initial attempts to approach Tibet were made from the western Himalayas.

In the same year that the SME established their mission at Bonga, Protestant missionaries of the Moravian community reached the cultural Tibetan region of Ladakh soon after it came under British overlordship during the First Sikh War of 1846. The Moravians actually hoped to use Ladakh as a stepping-stone to reach the Tibetan Buddhist Mon-

gols (to whom Moravians had ministered in Russian territory in the 18th and early 19th century). But in 1856, having been repeatedly turned back by the Tibetan border guards, they opened a mission station at Kyelang (Lahul), intending to carry out missionary activities on the frontier until Tibet opened. Their efforts were sanctioned by the Government of India, which provided land for the mission.[24] The Moravians subsequently established further mission stations in 1865 at Poo, the last village on the Indian side of the Tibetan border along the Sutlej route, and at the Ladakhi capital of Leh in 1885, in addition to shorter-lived endeavours at Chini and Simla. As centres with existing Tibetan trading communities, these stations offered the Moravians access to Tibetans, if not to Tibet itself.[25]

The late 19th century debate over medicine as a missionary strategy was highly relevant to the missionaries stationed around Tibet's frontiers because Tibetan Buddhists proved remarkably resistant to evangelical approaches and very few converted. But medical missions opened previously closed areas of the Himalayas. The Church Missionary Society, for example, made several attempts to establish a mission in Kashmir from 1854 onwards, but faced opposition from all levels of society. But the missionaries still had significant support from the imperial government in this period and around 1863 the Maharaja was pressured by the Viceroy to accept a mission dispensary in Srinigar. This was financed with 'liberal private assistance' from British officials,[26] who covered the expenses of a Scottish medical missionary, Dr. William Elmslie. That opposition to his presence remained is suggested by the rumour that his death in 1872 was due to poison,[27] but the dispensary continued to develop and by the 1890s was averaging over 30,000 patients annually.[28] Many came from considerable distances[29] and the dispensary paved the way for the extension of biomedicine in that state. By 1922, in a symbol of the transformation, the Maharaja begged the Government of India to allow the then medical officer, a Colonel Hugo IMS, to remain in Srinigar as, 'my life has been saved twice under his able treatment and I would naturally desire to retain him with me as long as possible'.[30]

The opening of the dispensary in Srinigar was followed in 1867 by the appointment of an Officer on Special Duty in Ladakh – the predecessor of the British Joint Commissioner there. They specifically sought out a medical man, and selected one Dr. Cayley. In his report the following year, he added his voice to those who saw the advantage of medical provision to the local people, concluding that

> the opportunity the dispensaries afforded me of communicating with the traders and others, and of conversing freely with them, were very great, and this I found of the greatest advantage in en-

> abling me to pick up information; and there is no doubt that the merchants have many of them returned to Central Asia, feeling a very lively gratitude for the benefits they have received; and such a feeling is calculated to spread abroad a spirit of friendship towards India among the races beyond the Himalayas, and thus indirectly promote future trade.[31]

The Moravian mission also found medicine useful, and the establishment of hospitals and schools was central to their activities in Lahul and Ladakh.[32] The first Moravian missionaries, August Heyde and Eduard Pagell, had basic medical training. Pagell's skill became so widely admired that in February 1867, when smallpox broke out in western Tibet, he was invited across the frontier to vaccinate. Pagell vaccinated 639 people in twelve villages in Tibet and while he was never allowed to return (and he and his wife died of typhus in 1883), this was a significant indication of how useful medical practice could be in enabling the missionaries to penetrate Tibetan society.[33]

Pagell's invitation seems to have been a unique initiative that was entirely contrary to Tibetan policy in that century and the invitation presumably came from local officials rather than the Lhasa-appointed regional governor (who was frequently absent). But this first recorded instance of vaccination inside Tibet not only suggests the demand that existed for efficacious medical treatment if the political barriers to its introduction could be removed, but also indicates the important role in facilitating biomedicine played by pragmatic local officials – with their vested interests in people's health.

The Moravians continued to focus on Lahul and Ladakh, where the dispensary they inherited from Cayley and ran with government assistance was held in high repute. However, the sparsely populated region provided, according to a 1921 report, 'insufficient work for one doctor', with just 1,500-2,000 new cases a year, 60-70 inpatients and 50-60 operations.[34] But such considerations were not the main issue for a mission hospital and as late as 1940 they concluded that, 'there *is* considerable missionary value derived from the hospital'.[35] By that time, however, that 'value' does not seem to represent increased conversion to Christianity, rather it referred to the geographical expansion of areas in which the Gospel was made known. This was, however, part of the Christian intention, deriving from the messianic belief that Christ's return could not occur before the entire globe had had the opportunity to know and accept Christianity.

In what is now Himachal Pradesh, a 'Himalaya Mission' was established as early as 1840 by European residents of Simla. This was later taken over by the Church Missionary Society, which opened missions in Simla around 1848, and in Kangra in 1854. In Chamba district, the

Rev William Ferguson arrived to serve as an independent missionary soon after the British had first appointed a Superintendent (Major Blair Reid) to the state in January 1863. Fergusson, a former Indian Army chaplain who had resigned to become a missionary, founded a church in Chamba and remained there until he fell ill in 1873.[36] He was apparently a somewhat eccentric figure. One observer recorded that 'as a Christian *faqir* he wore a distinctive garb, his gown and bands',[37] and, in contrast to the increasingly common biomedical missionaries, he was a homeopathic practitioner.[38] As he informed the Allahabad Missionary Conference of 1872-73, he would sometimes 'take his stand under a tree, ring a bell, and offer medicine to any willing to receive it.'[39] In 1900, Ferguson, having spent most of the intervening years in Cyprus, returned to Chamba while his successor went on furlough, and he died there in 1904 aged 83.[40]

While these missions were all aimed at Himalayan communities within British India, many of the individuals that served in them were primarily attracted to the Buddhist lands beyond the frontier and there was considerable optimism that medicine would enable them to reach beyond that frontier. Thus they became strong proponents of medical services, a view that was increasingly accepted in mission circles. Dr. John Hutchinson added his voice to the predominant mood of the Centenary Conference on the Protestant Missions of the World in 1889 when he stated that:[41]

> Wherever the Medical Missionary goes, the poor, the halt, the blind, the leper, the fever-stricken, in short, all forms of disease and suffering daily present themselves before him ... Labouring for many years as I have been in a native State, where our Missionary operations are viewed with not a little jealousy by the authorities, I can bear emphatic testimony to the powerful influence which this agency [medicine] has exerted ... in disarming opposition and in gaining for us the goodwill and friendship of all sections of the community.[42]

Hutchinson was a medical missionary with the Church of Scotland who, after three years in the Punjab, had taken over Fergusson's independent Chamba mission in 1873.[43] When he died at nearby Dalhousie in July 1936, aged 88, he had spent an extraordinary 65 years as a missionary, most of it in Chamba where he is now buried. His funeral was attended by most of the town's population.[44]

The opposition Hutchinson hinted at in his conference speech does not appear to have been from the political authorities there as developments in Chamba state suggest a close alliance of interests between imperial government, missionaries, and local elites. Maharaja Sri

Singh had requested British assistance after coming of age and owed his power to their presence, while after his death in 1870, in the absence of a direct heir, his elder brother Gopal Singh was recognised by the British above the claims of a younger sibling. In 1873, Gopal Singh stood down in favour of his seven-year old son Sham Singh, who was given a Western education and ruled until 1904. Thus, from the time a British representative arrived in Chamba, the interests of the ruling family lay in alliance with the imperial power that supported their rule, and the succession of Maharajas were generous in sponsorship of various imperial projects. Maharaja Sri Singh provided Ferguson with land in the town for mission use and later provided land for the mission dispensary.[45] Sham Singh, who in the traditional role of a Maharaja also sponsored the building of temples, mosques, and a Sikh *gudwara*, gave land for a church, paid for its building and even financed the pulpit, church organ, and a memorial plaque for Ferguson.[46] This patronage was to continue into the 20th century, with the housing of the Hospital Superintendent, another long-serving medical missionary, Dr. W.S. Robertson, still being provided by the Maharaja in the 1920s.[47]

Administratively, Chamba, as a state within the Punjab, was required to be self-financing. Major Reid, following the usual model of imperial development in these regions, stabilised Chamba state's finances and instituted revenue-raising measures that would finance modernisation. The Chamba ruling family do appear to have been strongly supportive of the kind of educational and medical initiatives promoted by the colonial state and missionary organisations. With the Maharaja providing the land necessary, a state primary school opened in 1863 and a medical department was inaugurated in 1866, with a hospital opened in December that year. This was headed by the Kashmir missionary Dr. Elmslie, who was sent to Chamba by the Panjab Medical Missionary Society at the request of the Maharaja. Dr. Elmslie was provided by the Maharaja with a salary supplement of 200 rupees a month, plus expenses, and a free house.[48] But Elmslie returned to Kashmir in March 1867 and the Chamba hospital closed again until February of the following year, when it was then reopened under a Hospital Assistant, Barkhurdar Khan, who remained there until at least 1906. In 1891 an improved hospital with beds for 40 inpatients was built and named after Maharaja Sham Singh.[49] In 1902, this hospital treated 11,720 patients, which, given that the population of Chamba was then only 6,000, supports the claim that, 'patients come in considerable numbers from the out-lying parts of the State'.[50]

The missionaries' medical efforts complemented those of Chamba state and in 1873 the Sham Singh hospital was taken over by the Church of Scotland for a period.[51] During that time Hutchinson ap-

pointed a member of the Brahmin caste, a Mr Basu, as a compounder in order to assuage the opposition that his report to the 1889 Centenary Conference hinted he faced from that most influential caste.[52] Hutchinson actually spent much of his time touring the district, venturing as far as the Moravian mission at Kyelang,[53] although the Church of Scotland authorities preferred his services as a physician to his itinerant preaching.[54]

The CSM mission eventually established its own Chamba dispensary and this proved almost as popular as the state hospital. In 1906 the Sham Singh hospital attracted 9,729 new patients and 421 operations were carried out there, while the CSM dispensary attracted 6,080 new patients and carried out 383 operations. By that time, both institutes were separately funded, with the Chamba state Medical Department's costs being 12,520 rupees for the year 1906.[55]

The popularity of their medical endeavours did enable the missionaries to overcome opposition to their presence and allow them to establish local church structures. They worked closely with the imperial government in the western Himalayas, and also succeeded in gaining the support of the indigenous elites, rapidly in Chamba, more slowly in Kashmir. Yet that elite support benefited neither the CSM nor the Moravians in their efforts to gain lasting access to Tibet, which remained their ultimate goal. Meanwhile, the London Missionary Society (LMS) were no more successful in their approaches to Tibet from Almora, where they established a mission in 1887.

In 1890, Rev G.M. Bulloch and two local evangelists, including the medical missionary Tara Datt, travelled north from Almora to the trading centres of Mansiari and Milam (which had a summer population of ca. 3,000). There they ministered to the local traders, whose main economic ties were with western Tibet. From 1893, indigenous Christian schoolteachers and medical missionaries established schools and temporary dispensaries there every summer and from 1896, a series of LMS female missionaries catered to the women there. The local medical evangelist Babu Silong reported that he treated the unbelievable number of 12,000 patients during the summer of 1897, and that, with the assistance of Miss Ethel Turner, 10,887 patients were treated the following summer, principally 'accidents and ailments due to exposure'.[56] Several of the European missionaries were able to use this chain of mission centres as a base for brief excursions across the border, but just as the imperial government failed in its endeavours to open Tibet via the western frontiers, so too were the missionaries unable to make any headway from that direction. Towards the end of the 19th century, however, the efforts of both parties were refocused towards the eastern Himalayan approaches to Tibet.

Darjeeling and the development of Kalimpong

After the establishment of diplomatic relations with Nepal in the early 19th century, and the posting of a British Resident in Kathmandhu, the Government of India accepted Nepal's right to exclude Christian missionaries. But a chain of mission stations was established along Nepal's southern borders, and in the east, on territory occupied by the Nepalese state at the height of its expansion in the early 19th century, the Government of Bengal established the town of Darjeeling. With its neighbour Kalimpong, this centre became a major stepping-stone for both political and missionary advances towards Tibet.

Darjeeling was part of territory restored to Sikkim by the British after the Anglo-Nepalese war of 1814-16, but in 1829 the first imperial officers to actually see it reported that it was the ideal location on which to establish eastern India's first hill station. It was also considered of strategic value as the key to a pass to Nepal, and the British determined to annex it. In 1835, the ruler of Sikkim was given a token sum of 3,000 rupees per annum as compensation for ceding the territory and the British then began to develop Darjeeling, which became a Non-Regulation District under the Government of Bengal. From a population of approximately 100 in 1835, it grew to over 10,000 people by 1849[57] and provided, as Alastair Lamb stated, 'a constant reminder' of nearby Tibet.[58]

In its early years as a hill station, Darjeeling attracted an independent Baptist missionary, the Rev William Start, who arrived in 1841 and founded the Darjeeling Mission, aimed at the local Lepcha,[59] Bhutia,[60] and Nepali populations. Start was joined by a German, Rev Carl Niebel, and in 1846 they published the *Gospel of St Matthew* in Lepcha, the first of a number of such Bible translations. Start retired in 1852, but Niebel carried on until his death in 1865, when an Anglo-Indian Baptist, the Rev J.C. Page, arrived and took over the mission until he left the district in 1875.[61] The Roman Catholics also established a presence in Darjeeling after 1846 and a Jesuit mission was founded there in 1885.[62]

Start and Niebel had made some efforts to introduce primary school education among the Lepchas,[63] but the initial educational emphasis in the Darjeeling district was aimed at Europeans and the children of local elites. Among the first schools established in Darjeeling was St Paul's High School, which was relocated from Calcutta in 1864, and with the advent of the Jesuits, St Joseph's High School opened in 1888.[64] But it was the Church of Scotland Mission that were the foremost initiators of primary schools in the region and although the Government of Bengal did finance schools in the plains districts at the foot of the Himalayas, in 1906 it was reported that the government

> has had such confidence in the Mission ... that up till this year all the Government contributions to primary education ... have been entrusted to the Mission ... for it has been found that practical solid educational work on broad lines has been obtained through the Mission at a minimum cost to Government.[65]

As an imperial hill station serving the Government of Bengal, Darjeeling became a centre for various manifestations of imperial power and presence, with permanent British residents, military cantonments, Christian churches, and libraries and schools on the European model. Yet despite the importance of medical understandings in the establishment of hill stations and the appointment of Dr. Archibald Campbell IMS as Superintendent of Darjeeling in 1839, the development of civil medical facilities there appears to have been slow. While the Army cantonment medical facilities were available to Europeans and there apparently was an earlier government dispensary,[66] the first medical institution to be established in Darjeeling with inpatient facilities was the Eden Sanitorium, opened in 1883. This was erected by the government at a cost of 200,000 rupees and named after the Bengal Governor Sir Ashley Eden, a prime mover in the development of Darjeeling. The 64-bed hospital was maintained (during the 1891-1912 period) at an annual cost of 40-50,000 rupees.[67] While originally intended as a convalescent home for Europeans and Eurasians, the Sanatorium increasingly served as a hospital,[68] catering to the hill stations' many visitors. It attracted a steady flow of patients; annual admissions varied between 349 and 507 patients during the years 1891–96, and between 109 and 159 operations were carried out annually.[69]

The Lowis Jubilee Sanitorium for Indian patients was opened in 1887, but in contrast to the government-financed hospital for Europeans and Eurasians, this establishment owed its origins to an initial donation of 90,000 rupees from Maharaja Gobind Lal Roy of Rangpur (a Bengal district adjacent to Bhutan), with additional funds raised by public subscription and the land provided by the Maharaja of Cooch Behar. Their patronage may be explained by the fact that both Maharajas had benefited from the British imperial presence. There had been a British representative in the trading centre of Rangpur since at least the time of Warren Hastings, and it was Hastings who had ensured the restoration of the throne of Cooch Behar after a Bhutanese incursion.

While the L.J. Sanitorium was maintained by the Government of Bengal, the annual provision for the 118 bed hospital, which treated around 650 inpatients per annum, was only 25,000 rupees.[70] The financial disparity between the two institutions is notable; roughly twice

as many Indian patients were treated at around half the cost of patients in the European-Eurasian hospital.

While a small number of beds at these two institutions were reserved for charity cases, both charged patients fees. Universal free medicine does not seem to have been available there until the opening in 1888 of a third institution, the Victoria Memorial Dispensary, in effect the Darjeeling Municipal hospital. Funded by both government and private donors, it originally had facilities for 45 inpatients and by 1903 this figure had increased to 70. In 1905, when Darjeeling had a population of between 17 to 24,000, depending on the season, the hospital treated over 10,000 outpatients, with 390 operations carried out there.[71]

Missionaries were not a significant influence in Darjeeling. The local elites were Europeans and the Christian churches were primarily concerned with the European and Eurasian Christian communities. But in 1866, the Darjeeling district was expanded to include areas newly annexed from Bhutan. While primarily comprised of the Duars, this new territory also included the Lepcha hamlet of Kalimpong. Situated on a ridge at a height of around 4,000 feet, some 30 miles from Darjeeling, Kalimpong was to become the centre of missionary activities in this region, while Darjeeling remained the political centre. The differing character of Darjeeling and Kalimpong was summed up by an American observer in the early 1920s:

> Darjeeling is essentially an official post, and there the missionaries play a very minor and subdued part even in the social life of the place. In Kalimpong, on the other hand ... the missionaries reign supreme. All the important buildings belong to the Scotch [*sic*] Presbyterian mission, which also owns large tracts of land in the district. The senior missionaries, therefore, form the local aristocracy, overawing even the British-Indian officials; and Dr. Graham, the head of the mission, is the uncrowned king of Kalimpong, the arbiter and dispenser of justice even to those not inside the Christian fold.[72]

Kalimpong was not a traditional centre of trade, nor was it of any strategic importance, and its early development as a missionary centre – indeed as a town – was due to the efforts of one man; Rev William Macfarlane. Born at Strathbraan in Perthshire in 1840 and educated at St Andrews University, Macfarlane was first sent by the Church of Scotland's Foreign Missionary Committee to Bodh Gaya, in what is now Bihar, where he remained from 1865 until that mission closed in 1870. In Bodh Gaya Macfarlane met several Lepcha youths who had been sent to the church orphanage there by a tea planter in Darjeeling. After

the difficulties of mission work among urban Hindus, he was impressed by the Lepcha's 'more child-like simplicity in receiving the teaching of Christ.'[73] Accompanying the youths to their homelands in June 1870, Macfarlane travelled through the district and recorded that, 'there is a place called Kalimpong [which] will be a suitable place to open a new station of the church among the Lepchas.'[74]

Obtaining a transfer to Darjeeling, where he apparently worked with Page to develop Start and Niebel's initiatives at the mission there, Macfarlane soon began to focus on Kalimpong. With financial support from both the Bengal government and local tea planters, he opened a small school there in 1873 and erected the first mission buildings the following year.[75] Within three years of his arrival in the district Macfarlane had established 25 primary schools with a total roll of 615 male and female pupils. Most significantly in our context, Macfarlane, having raised over £ 2,000 in supporting funds, then established a Training Institute at Darjeeling in 1886.[76]

While this Institute was primarily designed to prepare Lepcha Christians to preach in Sikkim, it was also intended to train schoolteachers. Within months the Institute was moved to Kalimpong and by the end of 1887 it had 36 students in residence.[77] The Kalimpong Institute became a highly significant centre for the dissemination not only of Christianity, but also of Western modernity through education. An indication of its influence was that by the end of the century eleven of its graduates were teaching over 300 pupils in Sikkim,[78] and until well into the 20th century a disproportionate number of Christians were employed in this region as teachers and as medical compounders[79] following training in Kalimpong. Mission histories record that;

> From the early days the Kalimpong Mission was to be looked on as a mission with its sights set on the closed Buddhist countries of Sikkim, Nepal, Bhutan and Tibet. It was hoped that some day those countries ... would open their doors to missionary endeavours and the Kalimpong Mission, right on the doorstep of each of them, would be the springboard from which entry could best be launched.[80]

It is notable that Macfarlane's educational initiatives coincided with the opening of a government school in Darjeeling in 1874. This was the Bhutia Boarding School, which was intended to provide a body of Western-educated Tibetan-speaking youths to assist in future British contacts with Tibet.[81] Imperial government and missionary educational initiatives towards Tibet thus coincided, and if there is no evidence of any explicit links between their projects nor is there evidence of tension between them. Government and missions shared aims and meth-

ods and benefited from each other's activities during this formative period.

The Church of Scotland Mission

While there were a number of other missions established around the Darjeeling-Kalimpong region,[82] the Church of Scotland Mission was the most significant group, not least in regard to medical work. They were part of a well-organised network controlled from Edinburgh. They had an established career structure, with a starting salary of 3,500 rupees per annum, rising to 5,500 rupees after fourteen years service, and had free accommodation. After serving for 21 years, they were eligible for a pension of at least £100 a year, although those who chose to stay on and serve a 30-year term went on to receive 6,000 rupees a year and retired on an annual pension of £200. In 1912, in implicit recognition of the improved health conditions in India, a 30-year term became standard.[83] In the late-19th century these wages and conditions were adequate to support a comfortable middle-class lifestyle, both in India and in retirement. By way of comparison, the British Trade Agent in Yatung was appointed by the Political Department in 1908 on a salary of around 5,000 rupees per annum, including an entertainment allowance.[84] But with the declining value of the rupee and increasing costs of living, missionary salaries became increasingly inadequate in the 20th century.

Before he first left Scotland in 1865, CSM missionary William Macfarlane firmly believed that Christian missionaries should proclaim the Gospel, and he insisted on being sent to India as an evangelist and not as a teacher. But practical experience of the difficulties of attracting converts convinced Macfarlane of the need for new approaches to reach the indigenous peoples of India.[85] A later missionary quoting his account of taking medicines from Darjeeling to Kalimpong during a cholera outbreak in June 1876 refers to the medicine as 'part of the regular equipment of our mission pioneer',[86] and Macfarlane himself described how, as a result of his efforts during that outbreak, local

> sentiments towards the Mission at this time underwent a complete change. At first it was viewed with deep suspicion. Now they began to come daily in twenties and thirties for medicines. We were welcome in their houses, and allowed to read and pray where no one would previously have permitted us to enter.[87]

Macfarlane's change of heart reflected the wider shift within missionary circles as to the best means of winning converts, but Macfarlane's primary concern was with schools rather than medicine. His major legacy was the Training Institute at Kalimpong, which was of immense significance for the future of education in the region. Medical structures were only developed after his death in 1887, aged just 47. It was John Graham and particularly his wife Katherine, a nurse, who were to be the real pioneers of medical initiatives in the district. Graham, born in London in 1861, grew up in Dunbartonshire, attended Glasgow High School, and took an MA at Edinburgh in preparation for the ministry, later being awarded a doctorate in divinity. He and his family arrived in Kalimpong in April 1889.[88]

Soon after their arrival, Mrs Graham started a girls' school[89] and then a small dispensary in the Kalimpong mission grounds. With the financial support of the Woman's Guild in Scotland the 25 bed Charteris hospital was built, named after the Edinburgh university professor who had first inspired Graham with the missionary impulse. The foundation stone was laid by a local tea planter and mission patron in October 1892 and the hospital was formally opened early in 1894. A qualified medical missionary, Dr. C.F. Ponder, arrived in August 1893 and is recorded as treating 1,588 patients in the temporary dispensary in October 1893 alone.[90]

Ponder had been a tea planter in Darjeeling district before returning to the UK to study medicine in Edinburgh, and was already equipped with local language skills. He began training three local assistants soon after his arrival, and in 1895, they passed their government examinations and received their compounder diplomas. That year Dr. Ponder's sister, a missionary nurse, arrived to assist him and the new hospital treated 13,446 patients, including, it was proudly noted, a Sikkimese Buddhist monk. In 1897 a branch dispensary was opened in Pedong under one of the compounders, and it treated 4,159 patients that year, with 21,918 treated in Kalimpong.[91] Mrs Graham and Miss Ponder, who were assisted by a Bengali nurse, began nursing training around this time.[92] The Charteris hospital thus became the medical training centre in the district while the Kalimpong Institute continued to train preachers and teachers.

The Charteris hospital drew on numerous sources of funding. In addition to various Church of Scotland supporters in the UK, it received assistance from both the Government of Bengal and local sponsors, who included both European and indigenous tea planters and philanthropists.[93] Graham's biographer noted that, 'Government was only too happy to permit the Charteris Hospital to be completely responsible for all medical care in the district.'[94] But the government actually contributed half the cost of building the Charteris hospital and made an

annual grant towards its expenses, as well as supplying housing and finance for dispensaries such as the one at Pedong.[95] While the amounts involved were limited, Kalimpong was just a small town in a Bengal district, and these official contributions must have owed something to Graham's personal influence.

The missionaries (and the imperial government), were keen to develop indigenous patronage for the medical establishments, just as they were to keen to indigenise education, medical practice, and Christianity itself. Each was an element in the culture they sought to implant. Patronage of good works was certainly customary for rulers in Indic tradition, and one example of this being applied to the new medical structures was provided by the Bhutanese Prime Minister, who then resided in Kalimpong during the summer months. He endowed a bed in the Charteris hospital, while his sister 'also made large gifts'.[96] But it was hoped that this tradition would be extended and take root among the new middle classes who were seen as benefiting from the imperial presence. In an 1895 Urdu/Hindi medical language handbook, written by a medical missionary, the selected phrases for use in dealing with Indian patients included the plea; 'Rich Indians should help us more than they do.'[97]

Whether in a culturally acceptable extension of traditional practice or as a pragmatic response to British wishes, local figures did increasingly cement their alliance with imperial interests by contributing to missionary educational and medical endeavours. We read, for example, that in 1904 a new dispensary was opened in Kalimpong bazaar funded by Ram Chandra Mitra, a local supply and transport contractor who held the British endowed title of Rai Bahadur.[98]

Fund-raising was an important part of missionary activities. In India itself, while encouraging indigenous patronage and seeking to establish self-supporting local churches, missionaries also appealed to wider networks of support among the European Christian community. In seeking to build the first (Macfarlane Memorial) Kalimpong church, Graham, for example, sought contributions not only in Calcutta and Darjeeling but from as far away as Bombay and Bangalore.[99] Their home countries were, however, the main target of missionary appeals and, as noted, while on furlough they could spend much of their time touring mission supporters to raise funds; Macfarlane, for example, addressed 329 meetings while in Scotland in 1882-83![100] Successful missionaries tended to be successful fund-raisers; with household names such as Dr. Livingstone attracting widespread support. Graham was one such missionary who had 'realised that money could be raised more quickly for God's work by gaining the interest of the influential and wealthy',[101] and after his arrival, donations to the Kalimpong mission increased from £379 in 1889 to £1,146 in 1896.[102] The level of influen-

tial people he cultivated is indicated by the fact that the foreword to his book was written by the Lieutenant-Governor of Bengal, Sir Charles Elliot.

This need to attract funding meant that accounts of missionary activities that were released to the public sphere were shaped to appeal to donors. While internal correspondence with the missionary societies dealt frankly with problems, literature aimed at the public unsurprisingly articulated a vision of progress and glossed over difficulties. The Christian religion did progress in Kalimpong district during the late 19th century; from the first baptism in 1874 the number of Christians rose to 1,386 by 1897.[103] But the great majority of converts were Lepchas, or low-caste Nepali Hindus. Both here and in other parts of the Himalayas converts from the Tibetan Buddhist community were almost unknown, as were converts from an elite class background.[104]

The need to appeal to supporters also meant that missionary literature emphasised conversion and the development of the church, for there remained a sense that that was the proper priority of missionaries. Medical work was not emphasised, but located in the context of conversion, explained as a means of overcoming 'superstition' and attracting converts. Additional regulations laid down early in the 20th century for medical missionaries in Kalimpong certainly appear to suggest lingering tensions over their role. It was decreed that:

> The Medical Missionary at Kalimpong shall make it his supreme duty to co-operate with his colleagues at Kalimpong in extending Christ's Kingdom in the Guild Mission-field, and particularly by means of his mission work in (1) the Charteris Hospital and (2) the Dispensaries. His medical work is ever to be used as a means of leading his patients to the knowledge of the Saviour.[105]

The question of how closely the mission should be associated with the Government was also subject to debate; their differing interests were recognised but the missionaries were well aware of the advantages of collaboration and it was decreed that:

> The question of co-operation with Government in medical work is left an open one, to be decided by the Medical Missionary and the Kalimpong Local Mission Council after experience and due consideration of circumstances. Government work should, however, not be allowed to be a hindrance to the purely Missionary work, nor should it form a distraction to the Medical Missionary in this work ... All fees received ... for medical work done for

Government or private persons shall be passed through the Mission Account Books ...[106]

The government, however, had little impact on Kalimpong at that time. It was the missionaries who had established the Training Institute and Charteris hospital and they were primarily responsible for Kalimpong becoming the centre for the spread of Western medicine not only in that district, but, as will be seen in succeeding chapters, to Sikkim and even Bhutan.[107] Yet they did enjoy the moral and financial support of the Bengal government, and were broadly acting within its interests.

Dr. Ponder departed in 1898 and was succeeded by a succession of missionary doctors as the Charteris hospital was gradually improved, with an operating theatre added around 1904,[108] and a leprosy hospital added soon after.[109] The hospital attracted a growing number of patients, as indicated by the following statistics from the 1903-13 period:[110]

Table 1.1 *Charteris Hospital Attendance, 1903-1913*

Year	*Inpatients*	*Outpatients*	*Operations performed*
1903	292	13,995	147
1904	298	16,291	148
1905	323	18,569	156
1906	[Not given]	–	–
1907	472	13,399	264
1908	471	16,033	224
1909	338	17,868	–
1910	331	15,924	183
1911	350	18,182	302
1912	539	20,118	264
1913	547	18,219	286

The Charteris hospital remained the district centre of medical activities throughout the colonial period and provided training to many medical staff who later served in Sikkim, Bhutan and Tibet. But with the British political advance into Sikkim in 1888-89, Kalimpong and Darjeeling ceased to be at the forefront of the either Christian or biomedical advance towards Tibet, and in the next chapter our narrative thus moves to follow the developments in Sikkim.

However, the Kalimpong missionaries never lost hope that they would be able to use medicine to lead the Christian advance into Tibet. A new initiative came in as late as 1930, when an Australian CSM medical missionary, Dr. R.B. Knox, established the 'Tibetan Dispensary' at the 11th mile district of Kalimpong. That area was primarily populated by the growing numbers of Tibetan traders involved in the wool

trade, for which Kalimpong had become the centre. The new dispensary attracted 2,328 and 2,220 outpatients in 1931 and 1932, respectively (all of whom were given Christian tracts), and its success was further indicated by the fact that Tibetan traders and visitors to Kalimpong became major donors to the Kalimpong medical institutions providing for them.[111] But while the number of patients increased, the missionary presence in Kalimpong gradually declined in the years leading up to Indian Independence. While the 11th mile Dispensary functioned until the 1970s, by that time the Tibetan population had dwindled and most patients were Nepali.[112]

Having served the local community for more than 80 years, the Charteris hospital, with the exception of the surgical ward, was finally demolished in 1972. A World Bank funded replacement was built, which passed to Indian government control in August 1973. By that time just one medical missionary, Dr. J.C. Duncan, remained in the town the missionaries had built; none remain today.[113] Both medicine and Christianity have been entirely indigenised there.

Dr. Shelton and the eastern Tibetan frontier

While the missionaries in the northeastern frontier districts of India continued to hope for access to Tibet from their base in Kalimpong, other missionary groups established themselves on Tibet's eastern frontier with China. The earliest group appear to have been the French Catholics previously referred to, and in around 1897 they were joined by the China Inland Mission, which established a centre at Tachienlu.[114] While the missionaries hoped to proselytise in Tibet, most of their converts in this region were actually Chinese or mixed race, and seeing Chinese control over Tibet as their best chance of being able to evangelise there, the missionaries tended to ally themselves with the Chinese authorities (some of whom were Christians). In a region often beyond effective control of either the Chinese or Tibetan government, few missionaries were able to avoid a degree of political involvement. But some went further and actively engaged in espionage and other questionable activities in support of what they saw as missionary interests in the triumph of the imperial powers over Tibet.[115]

As had been the case in India, evangelical efforts had little success on the eastern Tibetan frontier, and medical work came to be an important activity. Perhaps because he was the only qualified surgeon, the most significant medical missionary on this frontier was probably the American, Dr. Albert Shelton.[116] Born in Indiana in 1875, Shelton grew up in Kansas and after graduating from Kentucky University medical school he joined the Foreign Christian Missionary Society, sailing to

China with his wife in 1903. After five years at Tachienlu, Shelton established a mission further west at Batang in 1908.[117]

Shelton, like Dr. Graham in Kalimpong, was a successful fund-raiser who sought to gain local elite support for his work while also appealing to American sponsors. Fortuitously, his first patient was a local dignitary with a needle stuck in his hand.[118] Shelton removed it painlessly using local anaesthetic, and throughout his career he was careful to establish good ties with local authorities, whether government officials or bandit chiefs. He also displayed the initiative of the ideal frontiersman; when smallpox broke out in 1918, Shelton made his own vaccine, testing it on himself before successfully vaccinating 1,200 people in Batang despite local monastic opposition.[119]

His most notable achievement was the construction of a hospital in Batang, which opened in July 1917; 'a near-incomprehensible expression of Western technology ..... a temple of western medicine, the only medical facility for a region the size of California.'[120] Named (as was becoming characteristic of biomedical hospitals in the Indo-Tibetan world) in honour of a patron, Susan M. Diltz, the hospital was a three-storey building of rammed earth. It had beds for more than 50 patients, the first of whom was an old man who broke both legs when he fell off the balcony at the opening ceremony.[121] In an attempt to overcome local opposition to his work and shed light on Western medical practice, Shelton's operating theatre had glass walls so that all comers could see what he was doing, an initiative that attracted large crowds.[122]

The hospital flew the American flag to indicate when Shelton was available and it attracted both Chinese and Tibetan patients.[123] But while Shelton was successful enough to be able to charge those who could afford it for their treatment, it is difficult to gauge the medical impact of his work. He was apparently a fairly reluctant physician who kept short clinical hours and was frequently absent because he was touring, with evangelical and language work taking most of his time. However, he did train eight local assistants in the hope some would succeed him, although there is no record of their fate.[124] He recognised, however, that while called upon to treat sword cuts, broken bones, and gunshot wounds, in cases of fever and suchlike the local people regarded their own treatments as efficacious,[125] and he also found that while the Tibetans might accept his medicine, they would not accept Christianity. His experiences were thus very similar to those of missionaries on the Indo-Tibetan frontier.

Shelton did become widely known in Tibet. Consumed by the dream of reaching Lhasa, where he hoped to train young Tibetans in simple medical practices,[126] he received what he interpreted as an invitation from the Dalai Lama in August 1919. But the wording of the letter was

ambiguous, and when Shelton attempted to use it to reach Lhasa in 1922 he was soon turned back by the Tibetan authorities. He was then killed, apparently by bandits, on the return journey.[127] While the Batang hospital continued under a fellow medical missionary, the mission itself declined after Shelton's death, and the hospital was destroyed in Sino-Tibetan fighting in 1932.[128] Ultimately, Shelton left no apparent long-term medical impact, though he had clearly spread the knowledge of biomedicine in the region.

Conclusions

Following the establishment of a European hill station in Darjeeling, which became the local political centre, the Church of Scotland missionaries developed the town of Kalimpong and were primarily responsible for the introduction and establishment of Western medicine there. In the absence of government structures, the Kalimpong missionaries were effectively the local administrators. Through the development of schools they produced a body of youths, initially mostly Christian converts, who went on to be trained at the Kalimpong Institute in church ministry or teaching and as compounders at the Charteris hospital. These medical personnel were subsequently employed at mission and government dispensaries throughout northeastern India and in Sikkim and later Bhutan, contributing to the development and indigenisation of Western medicine in those regions.

These developments resulted from a conjunction of three processes in the missionary and the wider world, as noted in the Introduction. Firstly, by 1870, when Macfarlane began the CSM's activities there, missionary organisations were recognising the very limited results obtained by purely evangelical activities and increasingly turning to education and medicine as a means to reach those who had proved impervious to the evangelical message. Secondly, new scientific understandings of disease causation meant that Western medicine was becoming increasingly distinct from, and more efficacious than, indigenous medical practices, thus offering the missionaries a more powerful tool with which to propagate Christianity. Finally, the political and geographical advances of the imperial government in the 1870-1905 period were increasingly directed towards Tibet, allowing the missionaries to enter and evangelise the lower Himalayan territories in the wake of the northern advance.

The missionaries foresaw the imperial penetration of Tibet and believed that they would continue to follow the imperial flag. Totally convinced of the righteousness of their cause, they saw themselves as, 'the shock troops of a thriving church reaching out the hand of Christian

brotherhood to the conquered'.[129] Such military metaphors were in common use – Graham described medical missions as 'the Church's sappers and miners'[130] – and the missionary advance towards Tibet took on the mantle of a siege in the words of another contemporary mission chronicler:

> This apparently impregnable Gibraltar of modern missions is now invested on all sides but one, and the siege is being prosecuted with vigour by several societies, working independently of one another, but directed by a common aim and all cheered by the not distant hope of scaling the impenetrable walls and gaining the confidence of the people.[131]

Although missionaries recognised that their interests did not always coincide with those of government, the willingness of officialdom to allow them to take responsibility for organising public health and education in places such as Chamba and Kalimpong must have given them confidence that they would fulfil a similar role in Tibet. They had provided services that were in the interests of the government without the government having to meet the full cost of them, while creating indigenous Christian communities that were natural support bases for the British Empire. But as the imperial presence advanced into the Himalayas the missionaries were left behind. As will be seen, their presence in the Buddhist heartland was considered likely to be counter-productive by influential frontier officials, and they were largely prevented from operating there. Ultimately, while the missionaries could call upon influential supporters at Home and in India, their relationship with the government was an unequal one, and when their interests diverged, the missionaries were largely abandoned.

While some missionaries seem to have been better than others at soliciting government support, the missionaries relied heavily on donations from supporters in the UK and European philanthropists in India, and also sought patronage from local sources. While treatment remained free for the poor, grateful patients with sufficient means to pay did become an important source of income. This demonstrated the possibility of self-supporting medical institutions, but most of the schools and hospitals established by the missionaries were eventually taken over by either the imperial, or post-1947 Indian Government, and patronage (while it does continue today), might thus be seen as an intermediate step between missionary and state medical provision.

Missionaries targeted both elite and non-elite social groups. Converts were easier to find among the lower classes, yet mass conversion was difficult to imagine without elite support and elite conversion was valuable propaganda for the missions to use in their appeals for support.[132]

But, although the Himalayan elites did adopt Western medicine and send their children to Western schools, those who converted were almost invariably members of local minority and outcaste groups.[133] Thus most early converts in the Kalimpong region were Lepchas or members of the growing Nepali community, and these converts were among the earliest medical graduates at compounder level. But the elite groups soon began to perceive the advantages of Western education and medicine. Once satisfied that religious conversion would not be enforced, they increasingly sought to place their children into training institutes such as the Charteris Hospital. This situation prevailed throughout the colonial period, and allowed the traditional elites to slowly reproduce more usual social patterns within biomedical structures, something that may well have assisted its indigenisation.[134]

While missionary medicine provided the initial impetus towards biomedical development and accustomed people to Western medicine, patients, as Rosemary Fitzgerald observed 'proved adept at disentangling the medical and evangelistic threads that were interwoven in medical missionary work'.[135] The adoption of biomedicine brought neither mass conversion, nor, as will be seen, did it eliminate the indigenous medical world. Initial missionary optimism over the impact of Western medicine proved unjustified, but with the 20th century decline of evangelical fervour, educational and medical works continued to be seen as appropriate Christian activities. There was a decline in explicit emphasis on either the likelihood or the desirability of immediate conversion as a result of both practical experience and increasing understanding of Asian religion and society.

In a series of studies (see bibliography), John Bray has identified certain themes common to the various missionary groups around Tibet. He has highlighted the fact that they required the protection of the European powers, (and of the Chinese government in regard to eastern Tibet), in return for which they provided a range of benefits to the government. The provision of educational and medicinal services to the indigenous peoples also included information and intelligence. He has also highlighted the point that while close personal relations were established between Christian missionaries and individuals in Himalayan Buddhist societies, those individuals were selective with regard to the aspects of missionary offerings that they wished to adopt. Schools and hospitals were generally accepted, the Christian religion was generally not. Ultimately, the missions were identified with foreign power, and that fatally weakened their efforts to contest the indigenous social power and influence enjoyed by the Buddhist monasteries. It would seem that even the indigenisation of Christianity made little difference in this situation; in the absence of elite converts, the social status of

the indigenous Christians was not sufficient to provide leadership or to challenge existing hierarchies.

In regard to the character of the missionaries, Douglas Wissing has concluded on the basis of work on the eastern Tibet missions that, although; 'Christianity was central to their worldview, missionary volunteers were seldom religious zealots. Rather they were often enthusiastic young people who were attracted to an exciting life in a far-off land.'[136] His work draws attention to the extent to which missionaries were liable to become preoccupied with other activities; exploring, serving as guides and interpreters for other travellers, collecting and trading in artefacts and cultural relics – or even horses and guns – and acting as spies and political intermediaries.[137]

Taken in conjunction with the evidence of a number of missionaries who became psychiatrically disturbed or began to act contrary to missionary norms,[138] we may conclude that missionaries, medical or otherwise, lived in conditions of considerable mental and physical stress. Not only were they exposed to isolation, danger and physical hardship, but both their failures to win substantial numbers of converts and the complexities of their cultural encounter with indigenous faiths must also have induced doubts in the minds of many over the value of their missions. Extreme behaviour was a manifestation of those stresses. Ultimately the missionaries were a group of diverse individuals loosely bound together by shared faith and, in most cases in the Himalayan missions, a vision of evangelising Tibet. Their reactions to circumstances naturally varied widely.

In some senses, however, missionaries fit into an established social archetype in Himalayan society. The figure of the religious renunciate (*sannyāsi*) arriving from some far-off place and settling among a particular community was a common one there. Hindu and Buddhist renunciate frequently settled near a community and gradually built a small shrine while ministering to and being supported by that community. Such figures were expected to act in a moral fashion, to advise individuals on both worldly and spiritual matters, and to have some command of the healing arts. The more they lived up to the ideal and the better they performed their ministry, the more they were supported and admired.[139]

Christian medical missionaries could be located and accepted in that traditional context. The understanding of the extent of Christian missionaries' renunciation actually grew as the differentials between East and West became more widely known and missionaries were seen as having given up a great deal in order to help others.[140] Missionaries living up to the ideal and fitting this traditional model could therefore, be widely admired in their community. In making concessions to local practices and understandings, they could increase that support and of-

ten transform opposition into at least ambivalence. Missionaries often developed more ecumenical views and a few even completed a personal journey that transformed them into Hindus (although not, apparently, Buddhists).[141] But even Christians such as Ferguson and Hutchinson in Chamba, and Macfarlane and Graham in Kalimpong could be as closely associated with a Himalayan district in popular memory as indigenous religious practitioners.

To achieve that status, however, a missionary not only had to live up to behavioural and moral standards, but also to survive. Illness and premature death were constant companions. Not only did the missionaries die, so too did their wives and children. In Kalimpong alone in the period 1870-1910, aside from the premature death of Macfarlane, the dead included his early companion Duncan Campbell; and later a nurse, Jeannie Campbell; along with the Rev T.E. Taylor; a schoolteacher, Lily Waugh; and children of both Rev Mackenzie and Dr. Ponder. Dedication was thus characteristic and it remained so. In the 1950s, for example, the Jesuit William Mackey had all his teeth pulled out before he left for Bhutan, knowing he would have no access to a dentist there.[142] This dedication to service, and high standards of professional perfor-



Grave of Rev. William Macfarlane, founder of the Church of Scotland Mission, Kalimpong

mance and ethics were instilled in those trained by the missionaries and remain an acknowledged legacy of their presence.

Ultimately, however, missionary medicine was a paradoxical weapon. While it was initially a powerful means for gaining access to the local communities and was one of a number of factors attracting converts, the teaching and training processes which the missionaries instituted led to the indigenisation of biomedicine. Once that process of indigenisation took root, biomedicine ceased to be a significant means of attracting converts as it became clear that its power did not derive from, or require belief in, Christianity. By the mid-20th century, a religious context to biomedicine had been indigenised, with Himalayan Buddhists taking up biomedical practice with the understanding that it was a good Buddhist practice; that fited in with the 'right livelihood' requirement of the historical Buddha's 'Eightfold Path' to enlightenment.

2 Sikkim: Imperial Stepping-stone to Tibet

The introduction of biomedicine to Sikkim provides a number of contrasts to the rather *ad hoc* processes that occurred in the Kalimpong-Darjeeling and western Himalayan areas. The Buddhist state's reluctance to admit European missionaries into its realm restricted their influence on medical development in Sikkim. Missionary medicine was still a significant force in the first two decades of British rule, and Kalimpong-trained local staff played a major role in spreading biomedicine from the dispensaries there. But the missionaries were not able to dominate medical initiatives in this Himalayan state as they had in Kalimpong. Instead it was the Indian Political Department's appointees, the Sikkim Political Officers and their medical staff, who played the key role.

Sikkim was, however, primarily of importance to British India as the gateway to Tibet, and little finance – or effort – was devoted to developing it. Under the Princely state system, Sikkimese medical developments were largely funded from state revenue and the medical officers posted there were not of the highest status. But Sikkim did in many ways provide a model which the British hoped the Tibetans would emulate, not least in the medical sphere. It was a secure and stable state, where steadily growing numbers of Sikkimese resorted to biomedicine. There was no apparent resistance to the new system, and its structures and personnel were so rapidly indigenised that within two decades of the introduction of biomedicine, Sikkimese medical staff were being employed in British dispensaries in Tibet.

Sikkim, which became the 22nd state of India on 26 April 1975, is situated on the northern border of the Darjeeling district of Bengal. It separates the kingdoms of Nepal to the west from Bhutan to the east, while to its north and north-east is what is now the Tibetan Autonomous Region of China. Lying on the main trade route from Calcutta to Lhasa via the Chumbi Valley, Sikkim today occupies an area of 7,096 square kilometres, ranging in elevation from 300 to 8540 metres. Its highest point is the summit of Kangchenjunga, the third highest mountain in the world, and with much of the territory consisting of steep, jungle-covered inclines or snow-covered mountains, only 20% of its total area is considered habitable.[1]

The earliest known inhabitants of Sikkim were the Lepcha and Limbu tribes, but from at least the 13th century onwards Tibetans began to migrate southwards into Sikkim. Often referred to as 'Bhutias' but more correctly known as the Lhopo,[2] they came to form the bulk of the elite class. In the 17th century, refugee monks of the Nyingma sect of Tibetan Buddhism founded a kingdom there, enthroning Phuntsog Namgyal as Chogyal ('Maharaja' or 'King') in 1642. This dynasty ruled Sikkim until 1975,[3] but their power gradually declined as a result of Nepali immigration, which began in 1871[4] and accelerated under British influence. People of Nepali origin now form a majority of the 1997 population of 406,457,[5] but in 1891 Sikkim was home to just 30,458 people.[6] Among that number was John Claude White, the British representative in Gangtok who was appointed to the newly created post of Political Officer Sikkim in May 1889.[7]

British relations with Sikkim began as a consequence of the East India Company's rivalries with the growing power of the Nepalese state and they developed as a consequence of the British interest in opening Tibet. In 1815, British forces entered Sikkim, much of which had been conquered by the Gurkhas in 1788-89, and gained Sikkimese support against Nepal in return for the restoration of their rulers and much of their lost land. By the time of the Treaty of Titalia in 1817, imperial influence over Sikkim's foreign relations was formally acknowledged in return for British protection against Nepal. After 1835, when the reluctant Chogyal was persuaded to cede the Darjeeling hill tract to the British, relations between the two powers deteriorated, culminating in British forces again entering Sikkim in 1861. The Sikkimese were forced to sign a treaty that gave the British increased access to Sikkim, and forced to agree to assist in the building of roads up to the Tibetan frontier. In return, the Chogyal received an annual British subsidy. While Sikkim remained free of resident British officials, imperial influence on Sikkim henceforth increased. But indigenous opposition to the British grew and to the north the Tibetans became increasingly concerned by the expansionist European power to the south.

In the Tibetan understanding, Sikkim was a state within its sphere of influence, and numerous religio-political and cultural links existed between the aristocracies of the two states; the Sikkimese rulers, for example, traditionally took Tibetan brides. Threatened by the northward advance of British power, the Tibetans finally acted in 1886. They moved troops to the frontier and fortified a position which in the British understanding was in Sikkim. After lengthy negotiations failed, the British assembled a force termed the 'Sikkim Expedition', which expelled the Tibetans in March 1888. The Chinese, who claimed Tibet and thus Sikkim as part of their empire, then entered into talks with the British over the status of this frontier. These talks between the Brit-

ish and the Chinese (without Tibetan or Sikkimese participation) culminated in the Sikkim-Tibet Convention of March 1890, which defined the border and confirmed British authority over Sikkim.

In terms of size and population, Sikkim did not actually warrant a permanent British Resident. In the western Himalayas, 30 states, several larger and more populous than Sikkim, were then grouped together administratively as the Punjab Hill States under a single Resident. But a Political Officer was posted to Sikkim because of its strategic significance[8] and its potential role as a 'stepping-stone' to Tibet. White, a Public Works Department engineer in Darjeeling, had been the Bengal Political Officer A.W. Paul's deputy on the Sikkim campaign and with Paul involved in the Anglo-Chinese negotiations, White was appointed to the Sikkim post and stayed on until his retirement in 1908. At that time Sikkim did not have a fixed state capital in the European sense, with the politico-religious authority of the state represented by the Chogyal's palaces at Gangtok and Tumlong and the network of Sikkim's 36 monasteries.[9] Having located a suitable plot of land on which to build a Residency, which was near to (and above!), the palace at Gangtok, White effectively created Gangtok as the permanent capital of Sikkim.

While he was the dominant figure in this period of Sikkimese history, White was not highly regarded even by his employers. Though serving on the Younghusband mission as nominal second-in-command, and later given official charge of British relations with Bhutan and Tibet in addition to Sikkim, he was mistrusted by Viceroy Curzon and effectively ignored in regard to policy. That he was allowed to remain in Sikkim suggests the state's insignificance to the imperial government. White acted there, as one observer put it, 'like a little God'.[10] He treated the Sikkimese ruler abominably, exiling him from his capital for a number of years, and his successor as Political Officer admitted that:

> There can be little doubt that our relations with Sikkim were mismanaged at this time; too little tact and sympathy, too much of the hobnailed boot … [in Bhutan and Tibet] people said 'Sikkim has been turned into mud'.[11]

Through a Durbar ('Ruling Council' or 'Assembly of Ministers'), that he appointed and controlled, White effectively ruled Sikkim; as he put it, 'everything was in my hands', and the Durbar's insignificance is underlined by the fact that it did not meet at all in 1905-06.[12] But he had very little support there in terms of finance or manpower and Sikkim state was impoverished and lacking in most of the structures of modern government. In 1889, there were no police, courts, or public works,

and no secular education or public health system. Imperial government subsidies for Sikkim were limited to 12,000 rupees per annum. This was originally paid to the Chogyal, but after his banishment by White the subsidy went 'towards the expense of management of the State by a British officer'[13]; meaning White used the money as he chose.[14]

To counter the shortage of state funds, White initiated revenue-raising measures to obtain the finance necessary to create state structures. A land revenue settlement was made, forestry excise measures were introduced and, acting through the Durbar that he dominated, White was able to introduce the unpopular measure of increasing immigration from Nepal in order to expand the tax base and raise agricultural production. Within a decade, Sikkim state revenue had increased from just over £500 to £150,000 per annum.[15] This income enabled White to begin instituting the development of state structures on the British model and to encourage the introduction of modernity by financing the education of Sikkimese youths in British India.

Although White praised his office staff and their 'efficiency and good order',[16] his correspondence was invariably tardy and his record-keeping was poor.[17] It appears, however, that the first expenditure on medical matters from the Sikkim budget came in 1895-96; 1,330 rupees were allocated, presumably to build the civil dispensary that opened in Gangtok the following year, when 974 rupees were spent on its upkeep and 145 rupees for 'sanitation'.[18] White's role here is uncertain. He noted in his memoirs that he was responsible for all of the departments – police, education, revenue, and so on – normally under the charge of a specialist imperial officer and staff,[19] but he does not mention public health, where White did, at least initially, have the assistance of a European medical officer.

On the Sikkim Expedition, which remained in the field from January 1888 to January 1890, a Surgeon-Major R.H. Carew was attached to the British forces and a Surgeon Major G.H. Peevor was in charge of the Native Field Hospital.[20] The biggest health problem the mission faced was not with men, but with the mules, up to half of which fell ill.[21] The Army had expected harsh conditions and ordered that only those 'capable of standing continuous hard work and exposure in a cold climate' were to be selected for the mission.[22] Imperial battle casualties were light,[23] and although there is no record of the military providing medical services to the local peoples, the mission doubtless treated Tibetan battle casualties and local 'conscripted' labourers as well as Indian troops and their British officers.

When White first took up his post in Gangtok, the military medical staff who had served on the Sikkim campaign remained there on active duty, now under the command of Dr. J.K. Close.[24] After the departure

of the bulk of the Expedition, a Surgeon-Captain Dr. D.G. Marshall[25] was posted to Gangtok in 1891 to act as White's medical officer, and he was replaced the following year by Surgeon Captain Dr. A.W.T. Buist-Sparks.[26] In 1893, Surgeon-Captain Dr. G.F.W. Ewens arrived,[27] and he remained in Gangtok until at least 1895.[28] There is no record of any European physician having replaced Ewen, and it seems likely that an Indian-trained medical assistant served in the Gangtok dispensary. By 1905 it was certainly under the control of the hospital assistant H.N. Mitra, who remained there for some years.[29]

These medical officers were the first Western physicians to reside in Sikkim, and given that two of them later reached the rank of Lieutenant-Colonel, and that Marshall had topped the examinations in his intake, they must have been among the better-than-average physicians in the imperial service. Yet there is little evidence of their making any great impact on the medical world of Sikkim and it is likely that their services were given only to the army and to White and his staff. With White effectively exiling the Chogyal from Gangtok until late 1895, it was impossible to implement the usual imperial medical strategy of first impressing the ruling elites. Certainly in 1892, the Chogyal's two-year old daughter Kumari Kunzang Wangmo was still treated by indigenous 'propitiatory rites, such as burning of incense', when very ill.[30]

The early physicians did endure primitive conditions. White refers to an unnamed medical officer and his wife in this period, 'who lived in a two-roomed hut built of wattle and dab' [*sic*], where their wooden furniture was liable to sprout in the rainy season![31] The civil dispensary that opened in Gangtok in 1896-97 must have been very basic, given that even in the 1960s a Sikkim dispensary was described as; 'usually ... housed in small sheds. Half of the space is occupied by the medicine racks and table for dispensing. The remaining portion with a partition wall is being utilised by the compounder as his residence.'[32] However, such crude structures were only remarkable by European standards and their very simplicity may have encouraged patient resort. R.C. Crozier has noted that in China, the 'humble buildings and crude wards of the early hospitals probably helped by not intimidating simple peasants with an alien and too antiseptic environment.'[33]

Biomedicine did make some irregular progress in these early years as the daily average number of patients at the Gangtok dispensary demonstrates:[34]

Table 2.1 *Daily average attendance, Gangtok clinic*

Year	*Daily average attendance*
1896-97	6.5
1897-98	7.4
1898-99	7.4
1899-1900	5.9
1900-01	5.3
1901-02	12.8

The sudden increase in 1901-02 is difficult to account for though it may be a rise related to the regional smallpox epidemic of 1900. But in June 1902, another state dispensary was opened in Chidam,[35] and around this time a third dispensary opened at Rungpo. The latter was under the charge of the Public Works Department, suggesting White, following a common imperial officer's administrative strategy of diverting funds allocated for one department to another, more needy area, was able to use PWD funds for medical purposes. Before proceeding further, however, we may consider the existing indigenous medical situation in Sikkim.

Sikkimese traditional medicine

Sikkim in the 19th century lacked any state health structures as was the case elsewhere in the Himalayas. There was also no distinct or systemised medical tradition that might be termed 'Sikkimese medicine',[36] or any institutionalised centre for the dissemination of medical knowledge. Instead, there existed a wide range of healing practices and understandings, many of which were associated with particular communities. The Lhopo aristocracy (who made up the bulk of the monastic population), had access to the wider Himalayan medical tradition known as *sowa rigpa*, which was practised there by monks and less commonly by *amchis*.[37] These practitioners were often trained in Tibet, or followed Tibetan lineages of instruction. But in rural areas, where even today 90% of the population still resides,[38] such knowledge was less accessible and various forms of local healing were the primary treatment option. Knowledge of medicinal herbs was widespread, while most villages had a bone setter who applied herbal treatment allied to the use of bamboo splints.[39] Amulets against injury and disease were also common, along with charms and spells that are reminiscent of those in the Atharvavedic traditions of the Indian plains,[40] although Āyurvedic medicine was not known to have been practised there until more recently.

As these latter devices suggest, understandings of disease causation among the various communities in Sikkim were generally linked to a

belief in supernatural intervention as a primary cause of human suffering. Thus there existed a range of community or ethnically based ritual specialists who operated in the religio-magical sphere to divine causation and propitiate the illness-causing spirits. These included the *Bongthing* or *Muns* of the Lepcha tribes and the Nepali *Jañkri* spirit-mediums (who became increasingly important figures in the Sikkimese medical landscape as the Nepali population grew in the 20th century[41]). But there were similar practitioners among the Sherpa communities and among the Lhopa, many of whom were non-elite villagers with 'a very limited understanding of Buddhism'.[42] The Sikkimese seem to have moved easily between these various practitioners.

One other prominent feature of medical practice among the Buddhist population of Sikkim was the emphasis on pilgrimage as a remedy for particular complaints.[43] Pilgrimages were, and continue to be, undertaken to medicinal hot springs that are understood to be located within a Buddhist sacred landscape.[44]

Missionary medicine in Sikkim

The posting of a Political Officer in Gangtok marked a significant step in the northern advancement of imperial power towards its ultimate regional goal, Tibet. It was also of considerable significance to Christian missionaries, for whom expansion into Sikkim en route to Tibet was a logical consequence of their work in Kalimpong. But while a mission was established in Sikkim soon after the establishment of British authority there (just as it had been in places such as Ladakh, Chamba and Darjeeling), the advance into Sikkim demonstrated the Political Department's increasing reluctance to support Christian missionaries in their domains. In the wider context, the spread of Christian civilisation was part of the ideological impetus behind the growth of Empire, but, in practice, a complex relationship existed between missionaries and imperial government agents in this region.

Events in India – not least the 'Indian Mutiny' in 1857-58 – had demonstrated the potentially disastrous consequences of policies and actions affecting indigenous religious structures and practices. By the late 19th century, Political Officers, even when they were practising Christians themselves, recognised that missionaries were liable to disturb and radically change indigenous societies. While that might be acceptable in a 'tribal' society among groups such as the Lepcha who lacked wider political organisation or links to state and national identities, in wider society of frontier states such as Sikkim the missionaries' work could create unwanted political instability. The presence of missionaries was also strongly opposed by the local authorities and in acquies-

cing to their exclusion, the Political Officers strengthened the alliance of interests with those authorities. Thus, while the missionaries had been the key agents behind the introduction of biomedicine in Kalimpong, in Sikkim they found their efforts restricted by an alliance between the Sikkimese authorities and the Government of India.

The missionaries responded to those restrictions by making greater use of local Christians as medical missionaries, with important consequences in regard to the indigenisation of biomedicine. In the early years, the missions were able to establish three of the first six biomedical dispensaries in Sikkim and missionary medical efforts were only surpassed by government initiatives after the first decade of the 20th century or even later.

The first concrete step in the missionary approach to Sikkim came in 1880, when Rev William Sutherland arrived in Kalimpong to join the Church of Scotland mission and was allocated Sikkim as his particular mission field.[45] After several missionary visits to southern and eastern Sikkim, Sutherland travelled to the Chogyal's palace at Tumlong in 1883 to seek permission for a missionary to reside in Sikkim. But there was no response to his appeal or to a similar request from Rev William Macfarlane, who travelled through southern Sikkim in November 1885.[46] The Sikkimese government were presumably wary of provoking further British intervention by restricting the movement of Europeans and thus reluctantly permitted missionaries to travel in Sikkim,[47] but held out against the permanent presence of Christians.

Macfarlane encouraged another approach. The Lepchas, who were mainly followers of a 'Folk' religion, had proved amenable to conversion in Kalimpong district,[48] and the new political borders had not seriously fractured their tribal structures. So he began to train Lepchas in Kalimpong to spread the Gospel among their fellow tribesmen in Sikkim. The project had some success because in 1886 (when Macfarlane died) there were 26 Christians in Sikkim and by 1888 their numbers had doubled.[49]

But the Chogyal was unable to prevent the missionaries establishing a base in Sikkim in the new political conditions after the 1888 war. Gangtok itself remained out-of-bounds, but Sutherland selected a site in Chidam, in southern Sikkim just a day's journey from Darjeeling, and a mission house was completed there in 1890.[50] This was the same year that White moved into the new Residency in Gangtok and the significance of this symbolic convergence of imperial political and religious power cannot have escaped the attention of the Sikkimese.

Sutherland's initiative was supported by the Scottish Universities Mission (SUM) and was administratively separate from the CSM in Kalimpong (while numerous individuals worked for both missions the interests of the two groups did not always coincide).[51] The Reverend R.

Kilgour was the first of a series of Sikkim-based SUM missionaries, but like Sutherland he was an evangelist and not a medical missionary.

During the 1880s, Sutherland had ascertained that while the Chogyal was opposed to Christian missions he was prepared to allow the establishment of schools in Sikkim – if these were staffed by indigenous teachers. Local Christians who had been trained in Kalimpong were thus employed and by the end of that decade they had founded seven schools in southern Sikkim. In addition, many Sikkimese were educated at the CSM's Training Institute in Kalimpong; in 1891, for example, seventeen of the Institute's 37 students were Sikkimese.[52] These initiatives produced a body of youths educated on the Western model, who were thus equipped to become the first generation of Sikkimese to serve in the new state institutions such as schools and medical dispensaries. The existence of this group was to be crucial to the establishment and indigenisation of biomedicine in Sikkim.

The missionaries' efforts to gain a foothold in Gangtok continued to fail. An application for permission for the SUM to be allowed to move there was made by the Political Officer Sikkim in 1901, but was not approved by the Durbar.[53] Given that White controlled the Durbar, it is clear that he did not favour a missionary presence in Gangtok (a conclusion implied in his autobiography),[54] and he presumably made the request simply to satisfy local Christians. In 1910, Gangtok Christians themselves drew up a petition requesting that the Maharaja allow them to build a church there, but again without success.[55]

After its initial florescence, Christianity seems to have made little impact in Sikkim, with the number of believers declining between 1913 and 1922.[56] The Church blamed the lack of progress on the 'manifest hostility' of the Chogyal's heir, Sidkeong Tulku, who was reportedly pressuring local landlords to close the mission schools.[57] But despite his early death, the hostile climate continued and when the Rev Mackean left Sikkim in January 1921, after a total of fourteen years there, it proved difficult to find a replacement for this apparently unpromising position. But Mackean, frustrated by the lack of progress, suggested a new means of stimulating the Sikkim missionary enterprise; he 'firmly believed a medical man would be best suited to be his successor'.[58]

Mackean's conclusion drew on his experience of the medical dispensaries established in Sikkim. In 1901 he had described the missionaries' main activities in Sikkim as 'evangelistic, educational, and vocational training', with no mention of medicine.[59] But in 1897, the SUM had opened a medical dispensary at Chidam staffed by a compounder, Elatji Matiyas, a Lepcha convert to Christianity.[60] That it was successful is indicated by the fact that by 1906 further dispensaries staffed by local Christian compounders had been opened at Rhenock, Seriyong, and Dentan. In 1906, they dealt with 5,734 cases,[61] and by 1910 three

more dispensaries had been opened.[62] Additional dispensaries followed and by 1923-24 there were a total of eleven mission dispensaries in Sikkim, including one in Lachung in northern Sikkim opened by the Scandinavian Alliance Mission, which established a base there with two female missionaries in 1894.[63]

It appears that as in so many other regions, the missionaries discovered that medical services were the most effective way to reach the local populace. But whereas in Kalimpong there were Europeans in daily charge of the biomedical facilities, in Sikkim virtually all of the dispensaries – and the schools – were under indigenous control from the time they were opened. While the indigenisation of Christianity (and its associated teaching and medical programmes), was the missionary ideal, in practice Europeans tended to retain charge of the missions they had established, with local converts restricted to managing peripheral or isolated mission outposts. But the Sikkimese opposition to the permanent presence of European Christians hastened the rise of indigenous Christians to control over the church and its social institutions, and meant that Sikkimese were the primary agents and public face of missionary medicine there.

In this early period, Sikkimese Christians educated on the Western model seem to have been 'generalists', who moved easily between posts as teachers, preachers, or compounders, while those who had not converted were similarly liable to be employed in a variety of posts, including the growing colonial and state government bureaucracy.[64] After the initial period there was a growing specialisation typical of the processes of modernisation, and the move to state hegemony in regard to health and education was reflected in the way in which government employment began assuming greater status than employment among the missions. There was thus a gradual reversion to traditional social norms within the state system, something that can be seen as part of the indigenisation process along with the assumption of local control over recruitment, training programs, postings, and public health policies.

After Mackean's departure, a missionary willing to serve in Sikkim was eventually found; the Honourable Mary Scott. Just as the Reverend Graham assumed the David Livingston role in Kalimpong, so too did she fill the 'heroic' role in the histories of the Sikkim Church, with her arrival described as 'the most important watershed in the history of Christianity in Sikkim'.[65] Born in Scotland in 1877, a daughter of the 8th Lord Polwarth, Miss Scott accompanied Rev Graham and his wife to Kalimpong in 1905 when they returned from home leave. She remained there for eighteen years and received the Kaisar-i-Hind medal for her medical services to villagers during epidemics such as the influenza outbreak of 1918-19. She was clearly a strong individual, one Political Officer referred to her working, 'in what some of us considered to be 'insubordi-

nate co-operation' with the Church of Scotland Mission'.[66] Miss Scott eventually offered to fill the vacancy in Sikkim, and although her medical skills seem to have been self-taught, her aristocratic background and established reputation for good works stood her in good stead when she arrived in Sikkim in April 1923. She was permitted to live in Gangtok, 'a great concession by the Sikkim Maharaja',[67] that seems to have been a personal tribute to her character and reputation rather than a result of any initiative by the Political Officer.[68]

Mary Scott remained in Sikkim for sixteen years, where she was responsible for all missionary and church activities. Despite her lack of qualifications, she carried a medical kit and devoted much of her time to medical matters, supervising the mission dispensaries, organising medical camps, nursing and relief programs during epidemics, and caring for the sick in her own home.[69] Where Macfarlane and Sutherland had tried to spread Christianity into Sikkim through the Lepchas, Miss Scott used a different strategy. While identifying herself with the Sikkimese to the extent of wearing local clothing and living in simple quarters in the Gangtok bazaar, she also deliberately set out to gain the support of the local elites. Doubtless helped by her aristocratic background, she became a friend of the Maharani, accompanied Sikkimese royalty on a tour of India, and even acted as a hostess at the palace.[70] Before health problems with the altitude forced her to leave Sikkim, her efforts were rewarded when the Chogyal allowed the opening of a Christian Church in Gangtok in 1936.[71] The Rev Gavin Fairservice and his wife Ruth replaced her, but were not permitted to reside in Gangtok as missionaries,[72] and a 1938 regulation requiring Sikkimese to obtain permission from the Durbar to convert to Christianity suggests the Church's gains in Sikkim owed more to Mary Scott's personal influence than to any great enthusiasm for the new faith by the Sikkimese rulers.

In the absence of dispensary records or relevant writings by Mary Scott it is difficult to gauge the impact of missionary medical initiatives in Sikkim. It does appear that, during the first two decades of a British presence there, in terms of structures, medical standards, and patients attracted, the missionaries played at least as significant a part in the introduction of biomedicine as imperial government efforts. Both government and missionary clinics were staffed by compounders trained by the missionaries in Kalimpong and standards, facilities and resources must have been very similar. The major difference was, as noted, that European missionaries were largely absent from the Sikkim dispensaries, which were staffed by Sikkimese or other local people.

While eventually overtaken by state structures, the missionaries continued to be important agents for the spread of biomedicine, particularly in remote areas, into the 1930s and '40s. As in Kalimpong and

elsewhere, their influence on professional standards and the moral and ethical boundaries of the medical profession was also significant. Demonstrating a strong work-ethic and dedication to service, they set high standards of professional care that their Sikkimese trainees were required to emulate, although the Christian construct of the 'compassionate doctor' and ideals of service to the poor translated without difficulty into similar Buddhist ideals.[73] In a small and autonomous state, isolated from the extremes of Indian society, such standards and ideals proved easier to maintain in the post-colonial period than they did in India itself.

State development of biomedicine

In the early years of the 20th century, Sikkim became an important staging post for the Tibetan Frontier Commission, popularly known as the 'Younghusband mission'. John Claude White was preoccupied with the mission from 1902 until he returned from Lhasa in the autumn of 1904. Gangtok was increasing in size and population and the presence of numerous military units, each with their own medical officer, in and around Sikkim as a consequence of the Younghusband mission, was a reminder of the unsettled state of biomedical development there. The matter of appointing a permanent European medical officer to oversee public health in Sikkim was raised in a series of proposals White made early in 1906. But the discussion over whether the resulting charges should fall on the military or civil department, which lasted for more than two years, was not helped by White's characteristic tardiness in answering correspondence.[74] He initiated the discussion by reporting that the

> want of an administrative medical officer over both civil and military matters for the Agency is being more and more felt. There are many pressing questions such as the development and supervision of existing dispensaries, the opening of new ones, vaccination, sanitation, etc., and the organization of medical aid generally, which require special knowledge and which are now suffering from the fact that there is no medical officer attached to this Agency. ... All of ... [the dispensaries in Sikkim and Tibet] are under separate management and, although I can visit them occasionally, I am unable to say if the work in each is being properly carried on without a medical advisor. New dispensaries are required to be opened in Sikkim and without proper medical advice it is difficult to say where and how they should

> be opened. If all the dispensaries were brought under one control they would be worked more advantageously.[75]

White requested the appointment of an Agency Surgeon to administer both civil and military medical matters in Sikkim. He wanted 'a man of experience and tact', holding at least the rank of Major.[76] The Government of India eventually agreed to establish a new IMS position of Assistant Civil Surgeon at Gangtok to supervise all medical matters in Sikkim. These included responsibility for the state and missionary dispensaries, jails, schools, and 'personal attendance on the Chogyal and his family'.[77]

This latter duty was a regular charge in the various states under a Political Officer and does not indicate whether Sikkimese royalty had adopted biomedicine at that time. The Chogyal Thubtob Namgyal was now reconciled to British authority, and his Private Secretary, Lobsang Choden, had served as a British medical interpreter on the Younghusband mission. He had been given the British Indian title of Rai Bahadur and might be presumed to have spoken well of biomedicine. But as the Civil Surgeon was given extra allowances (that nearly doubled his regular pay of 300 rupees a month) in order to compensate him for the fact that there was 'practically no private practice in Gangtok',[78] it appears that at that time few if any of the Sikkimese elites had adopted the new medical system.

The first Civil Surgeon appointed to Gangtok was not of the status White had hoped. There was a wider context to this. After the Younghusband mission the British Government reversed the Curzonian policies of the Government of India, securing agreements with China in 1906 and Russia in 1907 that were intended to stabilise international relations in Central Asia. China was allowed to regain power in Tibet and when White retired from Sikkim in 1908 he was replaced by Charles (later Sir Charles) Bell, an austere and reserved officer who appeared likely to achieve Whitehall's aim of 'keeping things quiet' on the northeastern frontier.[79] That frontier thus became an imperial backwater, with ambitious officers preferring postings to locations, such as the northwestern frontier, which were more at the forefront of imperial attention. In such circumstances, the post of Civil Surgeon Gangtok had little allure.

The state physician appointed to Gangtok was the Indian-born Assistant Surgeon 2nd class John Nelson Turner (1871-193?), a member of the Subordinate Medical Department, and not a qualified doctor. Turner, who was probably (like his successors), a Eurasian, has left little mark in the records. He took up his post on 20 August 1909 and remained in Sikkim until he retired with the rank of senior assistant surgeon early in 1920. During World War One, when the IMS suffered a

considerable shortage of manpower that it alleviated through the use of the Subordinate service officers, Turner was given the honorary rank of Captain. But his comparatively low status was underlined by the fact that he was outranked by the IMS officers then serving at Gyantse dispensary, a potent symbol of the greater importance of Tibet in British thinking. Only when the Gyantse post was given to a Sikkimese sub-assistant surgeon in December 1915 was that position reversed.

Turner does appear to have overseen a continuing development of biomedicine in Sikkim. In 1901-02, the government dispensary at Gangtok had treated around 4,500 patients. In 1908-09, the figure was approximately 7,500 (including 218 inpatients).[80] The reports for the 1912-15 period show 'a very steady increase'[81] in patients at Gangtok to over 8,000 cases in 1915. Other dispensaries also seemed popular. The government establishments at Chidam and Rungpo treated a total of some 6,500 patients in 1908-09, while the three missionary dispensaries (to which the state government contributed an annual sum of 250 rupees), treated more than 9,000 patients.[82] Peripatetic dispensaries were subsequently introduced, which were set up at the fairs that served as the meeting grounds for Himalayan populations, while the SUM opened new dispensaries at Vok and Rinchenpong. It was, however, forced to close Richenpong and Dentam on the dismissal of the compounder in charge of these sites.[83]

By 1915, considerable progress had also been made towards the indigenisation of biomedicine in Sikkim. The introduction and development of biomedicine was a process, one that in the Himalayas required at least a generation, but from this time on it was firmly rooted in Sikkim. This was in sharp contrast to Tibet and Bhutan, which did not develop any significant indigenous biomedical tradition during the British period. While Sikkim state's closer treaty links to British India and the political alliance that developed between the British and the Sikkimese aristocracy fostered this process, the key factor appears to have been the number of Sikkimese who had received a Western education. The government and mission schools in Darjeeling and Kalimpong, and in Sikkim itself from the 1880s, provided a small but regular supply of youths from either the Lhopo aristocracy or the Lepcha and Nepali Christian communities, who were educated in the Western system.[84] Such an education was an essential precursor to the biomedical training process, imparting the modern scientific worldview necessary for the understanding of biomedicine. The fact that this education was, in state schools, essentially secular, and did not require conversion to Christianity made it more easily acceptable to the Himalayan Buddhist aristocracy, who from the 1920s onwards came to increasingly occupy the more powerful positions in the developing medical structures. The 'native Christians' and other Christian-educated youths from tradition-

ally lower status social groups continued, however, to fill the lower ranks of compounders, dressers, and nurses in disproportionate numbers.

During White's residency no Sikkimese appear to have progressed beyond compounder qualifications. But his successor Charles Bell proved to be an astute thinker who sought to encourage indigenous modernisation in the Himalayan states as a means of strengthening them, and consequently, the security of British India's northern border. He therefore encouraged the education of Sikkimese medical students, albeit – as will be seen – with the primary aim of employing them in Tibet. Thus, of the first three students sent from Sikkim to Temple Medical College in Patna, two were immediately posted to a Political Department dispensary in Tibet when they graduated. These men were Tonyot Tsering and Bo Tsering (who were not closely related), both Kalimpong educated Sikkimese who graduated as sub-assistant surgeons in 1913 and 1914 respectively.[85] Their contemporary Bhowani Das Prasad Pradhan, however, a member of the Nepali community, remained in Sikkim after completing his training in Patna. He was placed in charge of the Chidam dispensary in 1913.[86]

Thus, as the structures of a state medical system began to be developed in Sikkim, vacancies were filled by emerging Sikkimese medical graduates. Their training was financed from the Sikkim state revenues; we read, for example, that in 1924-25, 'Lobzang Mingyur, a student who was sent to the Campbell Medical School, Calcutta, at the expense of the Durbar, finished his course of studies and was entertained at the Gangtok hospital as an extra compounder.'[87] Associated aspects of the development of a modern state public health bureaucracy similarly aided the growth of a Western-educated administrative class by offering employment opportunities in the new spheres. During the 1920s, for example, registration of births and deaths was made compulsory, while a Civil Veterinary Department was established with a dispensary at Gangtok. Dog licenses were also introduced, with orders given to destroy dogs without the appropriate tags.[88] In addition, sanitary measures were introduced in the Gangtok bazaar.[89]

As had been the case in Chamba, the steady development of biomedicine in Sikkim was stimulated by its patronage under the state's traditional ruler. The 9th Chogyal of Sikkim, Sir Thutob Namgyal, had outlasted White and even generously praised him in the *History of Sikkim* that he compiled.[90] With the less dictatorial and more persuasive Charles Bell as the Political Officer, Thutob Namgyal was increasingly supportive of modernisation. After his death in 1914, Sidkeon Namgyal Tulku, who had been groomed for the post by the British, succeeded him but died after ruling for just 10 months.[91] His younger half-brother, Tashi (later Sir Tashi) Namgyal, who had been educated at St Paul's

and Mayo College in India, then became Chogyal in 1915 and ruled Sikkim until his death in 1963.

Tashi Namgyal was, according to British reports 'deeply interested in medical affairs'. In the early 1920s, he and his wife ('the Maharani' in British records), made a number of visits to the hospital in Gangtok, 'and rendered every help possible'. The Maharani even joined the Political Officer's wife in organising classes at which local ladies might prepare garments for patients and so forth.[92] This type of patronage continued into the post-colonial period.[93]

These symbols of royal approval for, and association with, the new medical developments had considerable symbolic significance in Sikkimese society, bestowing royal authority on the new medical system and successfully encouraging others to support it. As early as 1905, for example, three beds in the Gangtok dispensary were subsidised by the Indian merchants Jetmull and Bhoraj.[94] The landlord class also followed their ruler in supporting biomedical expansion and assisted in its indigenisation. By 1913, it was reported that the *Kazis* (the predominantly Lepcha land-owning aristocracy) and *thikadars* (the Nepali land-owning aristocracy), were willing to build suitable dispensaries if the Government would stock them.[95]

Royal patronage was clearly articulated in the naming of a new Gangtok hospital built to replace the existing dispensary there. On 24 September 1917, the new Chogyal, Tashi Namgyal, officially opened the Sir Thutob Namgyal Memorial Hospital.[96] Situated on a ridge overlooking Gangtok,[97] it opened with beds for 10 inpatients,[98] and charge of the new facility was given to a state medical officer of Sikkimese nationality.[99] The hospital became the centre of biomedicine in Sikkim, although it was initially poorly-equipped, not until 1923-24, for example, did it have a microscope.[100] But additional specialist wards were gradually added; a tuberculosis ward in the late 1920s and, after a trained midwife was first posted to the hospital in 1929-30, a maternity ward was constructed in the late 1930s.[101]

The new hospital did not immediately affect patient numbers at Gangtok. In 1923-24, just under 8,000 patients came to the hospital, only a few more than a decade earlier. But in the ensuing decade until 1933-34, Gangtok outpatient numbers doubled to just over 16,000, although inpatient numbers were inconsistent. They varied from a low of 317 in 1929-30 to highs of 465 in 1924-25 and 455 in 1933-34.[102] The reasons for the increase in outpatients are not stated in British accounts, but the increasing population, biomedical advances, and personnel changes must all be considered as factors along with a growing acceptance of biomedicine by Sikkimese.

On 1 November 1922, John Turner was replaced as Civil Surgeon Gangtok by the senior assistant surgeon, Dr. John Charles Dyer of the



Sir Thutob Namgyal Memorial Hospital in Gangtok

Subordinate medical services. Although a Eurasian, as a fully-qualified medical practitioner, Dyer was of a higher professional status than Turner and he was a well-regarded medical officer.[103] In November 1920, he had accompanied Sir Charles Bell to Lhasa and remained there for several weeks until Bell's old friend, the Tibetan-speaking Lt-Colonel Robert Kennedy IMS was able to join him there.

When Dyer left Sikkim in January 1928, his replacement was sub-assistant surgeon Dr. Kenneth Percival Elloy DCM,[104] who remained in Gangtok until February 1932, when he was replaced as Civil Surgeon by Dr. W. St. A. Hendricks. Like Dyer and Elloy, Hendricks was a Eurasian. But he was described by the Political Officer's wife as 'a very fine GP',[105] and significantly, he was a member of the IMS, the first officer of the higher service to hold the Civil Surgeon position in Sikkim. The increased status of the post was a recognition of the fact that Gangtok was not only growing in population, but was also becoming a place of some political importance again as the Sino-British struggle for control over Tibet intensified. The arrival of Basil Gould as Political Officer

Sikkim in December 1935 saw the Gangtok post upgraded to a 2nd class Residency, and in August of the following year, Gould led a mission to the Tibetan capital that became a permanent British Mission in Lhasa.

Gould placed considerable emphasis on the maintenance of British prestige as a means of government, and these increases in status were no coincidence. The political role of the Sikkim medical officers was now more obvious after some decades of lingering in abeyance. Thus, the emphasis on the modernity of medical practice in Sikkim in reports on *kala-azar*, the fever which became an epidemic in Sikkim every 15-20 years; it was noted in 1939 that treatment of the fever in Gangtok 'was in every way in accordance with recent teaching' and that the advice of a specialist from the Tropical School of Medicine in Calcutta was being followed.[106]

Yet Sikkim remained an economically insignificant state. *Kala-azar* was believed to be spread by sandflies, but it was noted that, 'to carry out efficient anti-sandfly measures in one village would absorb the whole revenue of the state'.[107] Most of Sikkim's medical costs were borne from local revenue, including contributions to the mission dispensaries. The contribution of the imperial Government was small; in 1917-18 they gave just 1,500 rupees for medicine, in addition to covering indirect costs incurred by the PWD dispensary at Rungpo.[108] These economic restrictions acted as a considerable brake on biomedical progress in Sikkim.

One possible source of income was to charge for medical services and a step in this direction was taken in the 1920s. Initially, as was the case throughout all of those regions where British authority was represented by the Political Department, biomedical services were provided free of cost (as they were at missionary dispensaries). It was stated in regard to Sikkim that the 'established policy of the State is to place medical aid within the reach of all classes of people in the State'.[109] In the case of the Chogyal and his immediate family, the Civil Surgeon, as we have seen, received an additional allowance to compensate him for providing private treatment to the royal family, while all others could receive free treatment at the dispensaries and hospitals. But just as the wealthier Sikkimese might choose to consult privately with the Civil Surgeon on a fee-paying basis, so too, in the 1920s, was there a demand for private treatment at the Gangtok hospital. A ward originally built as a TB ward was converted into a paying ward, which charged a rupee a day for the bigger room and 8 annas (sixteen annas = 1 rupee) for the smaller. This was made possible by converting the leper ward into a TB ward and transferring Sikkim's lepers to existing facilities in Kalimpong – with 200 rupees per annum given to that hospice in return.[110]

Private medical practice was never forbidden in Sikkim and several individuals who had trained as compounders in Kalimpong established practices after initial experience in dispensaries in the region. It was not, however, until the 1970s that fully-qualified doctors set up private practice there. Until that time, any Sikkimese qualifying as a doctor would be absorbed into government service.[111]

Health conditions in Sikkim

There were distinct local characteristics to the pattern of medical conditions encountered in Sikkim. In the first breakdown of medical conditions given in 1908-09, it was stated that at the state dispensaries, worms formed around 40% of the caseload. Malaria (15%), skin diseases (12%), goitre and ulcers (both around 5%), were the other common conditions recorded.[112] Those conditions continued to provide much of the doctor's caseloads although there were regular outbreaks of epidemics such as smallpox and *kala-azar*. But a report in 1913 that 20 Lepchas in the Ringem Valley had died due to 'eating excess of raw fruit and jungle roots owing to a slight scarcity of food grains',[113] hints at the economic status of rural areas and the extent to which epidemic deaths may have been swollen by those already to some extent malnourished.

Sikkim certainly suffered heavily in the great influenza pandemic that followed the First World War and with India also badly affected, it proved difficult to obtain outside medical aid. Reaching its peak in October and November of 1918, influenza killed 2,767 people in Sikkim. This was more than 3% of the population, and the Civil Surgeon reported that 'it may safely be said that no one in Sikkim escaped a mild or severe attack'. Among the dead was the sub-assistant surgeon at Chidam.[114]

A notable feature of public health in Sikkim was that in contrast to neighbouring Bhutan and Tibet (as will be seen), venereal diseases were not a significant part of the medical caseload. Primary and secondary syphilis and gonorrhoea provided around 1% of the medical caseload in Gangtok until the late 1920s, when it increased to around 2%. But it apparently remained relatively uncommon, and by the mid-1960s the figure had declined to 0.1%.[115]

Imperial biomedical priorities were life-threatening conditions, thus iodine deficiency disorders were not seriously dealt with in the colonial period. All of Sikkim falls within an iodine deficient zone and it was not until 1984 that iodised salt was made compulsory. But even today around 15% of the population, particularly the poorer rural dwellers who are less likely to eat imported foods, are still liable to goitre.[116] Similarly, as was to be the case in Tibet and Bhutan, no provision seems to have been made for psychiatric conditions. These were generally

treated within the local community and not regarded as a medical problem. After 1947, mental illness cases could be sent for treatment at an Indian mental hospital in Ranchi, West Bengal, but there remains a sense that such conditions bring disgrace to a family, and mental problems were often kept hidden by families.[117]

Vaccination against smallpox, which will be discussed in depth in the following chapters on Tibet, was an immediate medical priority for the British in Sikkim. Despite its comparative isolation, Sikkim lay astride the main trade route from India to Tibet and its borders were also open to east-west traders from Nepal and Bhutan. Thus it remained liable to outbreaks of smallpox introduced from neighbouring regions and could act as a 'gateway' for outbreaks of smallpox to spread across the Himalayas. Sikkim had little or no protection against the regular outbreaks of this devastating disease,[118] and vaccination was among the earliest biomedical initiatives there. It appears to have begun in the late 1890s. In a report on medical developments in Kalimpong for the year 1899, one of three local students who had completed medical training there was stated to be 'vaccinating in Sikkim', while the Rev Macara was sent to vaccinate people in Sikkim during the major regional smallpox outbreak of 1900, when, 'over 100 deaths were reported in one area alone'.[119] Funding for this does not appear to have come from Sikkim state revenues and may therefore have been part of the Bengal state vaccination program, with missionary assistance.

White stated in 1906 that 'I started vaccination in Sikkim a few years ago and am doing all that can possibly be done',[120] but it was not until 1908, after his departure, that vaccination was made compulsory in Sikkim.[121] Vaccination uptake seems to have been stimulated by the 1900 outbreak and subsequent local epidemics for 4,391 persons were vaccinated in 1900-01, and 2,331 in the following year (although no details are given regarding revaccination or success rates).[122]

Around 1904, Sikkim state revenues began to be used for funding vaccinations on a systematic basis. The state was divided into eight circular areas, each with a licensed vaccinator operating there for the five (summer) months of the year when smallpox was most prevalent. The new system produced a gradual increase in the numbers vaccinated, from 3,220 persons in 1904-05 (when there were 182 deaths from smallpox in Sikkim) and 3,578 in the following year,[123] to 5,935 persons in 1907-08. But in 1908-09, the number declined to a total of 4,884 primary and 768 revaccinations, a decline attributed to 'the reluctance of the Bhutias to have themselves revaccinated'.[124] No mention is made of any reluctance to undergo initial vaccination, and it was observed two decades later in the Sikkim annual report that 'it is noteworthy that there is little or no opposition to vaccination', a statement repeated the following year.[125]

While such statements need to be treated with some caution, for the reports were designed to be optimistic and reflect well on the medical officers writing them, resistance to vaccination was noted in medical reports from Tibet. The absence of such references here suggests easier acceptance of vaccination in Sikkim than in Tibet. But any indigenous cultural resistance may have been overcome in the under-reported 1890s, and the Sikkimese, in any case, had had close dealings with the Bengal district of India since the early 19th century and thus had a greater awareness of Western medicine than the more isolated Tibetans. What may have affected vaccination uptake was the fact that it was not free. The vaccinators charged two *anna*s per treatment until the charge was abolished in 1929-30, at which time the number of vaccinator's positions was increased and they were made full-time salaried posts.[126]

Figures for the numbers of persons vaccinated in Sikkim do show considerable annual fluctuations that to some extent reflect smallpox occurrence patterns. In 1912-13, fourteen cases of smallpox were recorded in Sikkim, including two in the military barracks in Gangtok. Six deaths resulted from the outbreak, which was traced to aristocratic pilgrims returning from Nepal. The number of dead was considerably less than the regular annual totals of over a hundred just a decade before. But the efficacy of vaccination was now well-known and the outbreak acted as a stimulus to preventative treatment; 9,580 person were vaccinated with lymph that year, and 11,195 the following year. In 1914-15, more detailed figures began to be given. 8,043 people were vaccinated (including 5,615 under six year olds), of whom 7,925 were vaccinated for the first time, 49 cases failed to react and in 206 cases the results were 'unknown', 118 cases were revaccinated, of which 32 failed, and in eleven cases the result was 'unknown'.[127]

Available figures for the ensuing years are as follows:[128]

Table 2.2 *Sikkimese smallpox records 1917-1934*

Year	*Smallpox cases*	*Deaths*	*Vaccinations*	*Revaccinations*
1917-18	3	2	6,163	1,521
1918-19	19	1	6,641	2,432
1922-23	0	0	3,339	not recorded
1923-24	5	unclear	6,676	not recorded
1925-26	19	2	7,010	961
1926-27	23	13	7,137	1,957
1927-28	108	17	9,477	not recorded
1928-29	75	19	7,884	not recorded
1929-30	120	41	5,915	not recorded
1930-31	30	3	8,379	4,517
1932-33	'practically no cases'		2,451	not recorded
1933-34	'practically no cases'		4,677	not recorded

As these figures indicate, the annual medical reports from Sikkim did not consistently provide a breakdown into primary and re-vaccinations. Nor did they always indicate the percentage of these vaccinations that were successful, the figure for years when they did are as follows:

Table 2.3 *Smallpox vaccination success records 1917-1931*

Year	*Total Vaccinations*	*Unsuccessful*	*Result unknown*
1917-18	6,163	1,073	212
1918-19	6,641	925	not recorded
1922-23	3,339	49	67
1923-24	6,676	168	74
1925-26	7,010	265	213
1926-27	7,137	926	422
1927-8	9,477	856	863
1928-9	7,884	1,838	553
1930-31	8,379	2,343	1,052

Where vaccinations were unsuccessful, 'most were revaccinated',[129] while those where the result was unknown were presumably traders, nomads, and others who did return for monitoring. What is clear is that the vaccinators focussed on children. In 1917-18 two-thirds of those vaccinated were children; the following year the figure was 50% and in subsequent years it often exceeded that figure,[130] suggesting that most Sikkimese adults had been vaccinated and that their children were being systematically vaccinated. Nor does any particular social group appear to have been excluded. Uniquely, in 1917-18, vaccination figures were broken down on communal lines. Of the 6,163 persons vaccinated, ten were Christians, 4,678 were Hindus (primarily of Nepali origin), and 1,475 were 'Bhutiya' and Lepcha, figures roughly representative of the communal diversity.

In 1923 and '24, it was reported that 'Every endeavour was made to push on vaccination throughout Sikkim',[131] yet its eradication was a long way off. It persisted, particularly in remote districts or those exposed to immigration, trade and pilgrimage. In as late as 1956 there were still 142 smallpox patients in Sikkim and the disease was not entirely eradicated until the 1970s.[132]

The post-colonial generation

The indigenisation of biomedicine in Sikkim meant that the departure of the British had little medical impact there. The last of the imperial Civil Surgeons, Dr. G.F. Humphreys IMS, was an experienced doctor.

He had served in Tibet as the medical officer in Gyantse from October 1940-May 1944, and visited Lhasa in 1942-43 as accompanying physician to two American emissaries. A Eurasian, he remained in Gangtok until the mid-1950s, providing continuity through the transitional period. The Sikkimese sub-assistant surgeons who had served in the imperial dispensaries in Tibet withdrew back to Sikkim during the 1950s as the Chinese takeover of Tibet intensified, increasing the pool of experienced medical practitioners available to the Sikkim state, which retained its semi-independent status from 1947-75.

Biomedical patient numbers continued to increase in post-colonial Sikkim, the state-wide figures available for the 1954-63 period being as follows:[133]

Table 2.4 *Sikkim biomedical patients 1954-1963*

Year	*Total patients*
1954	115,060
1955	120,637
1956	168,301
1957	176,395
1958	173,083
1961	167,649
1963	188,526

But throughout the 1950s and '60s, biomedical development was restricted by the limited state revenues available, and continued to rely on Royal patronage to fund many routine items.[134] During this period the Sikkimese health services were heavily reliant for specialist services on the variable commitment of Indian doctors employed on short-term contracts. At the time of the Indian takeover in 1975, there were just four district hospitals in addition to the STNM Hospital in Gangtok. The bulk of biomedical consultations took place in rural dispensaries and primary health care centres staffed by compounders, who thus remained the principle interface between biomedicine and local patients.[135] But an indigenous class of medical specialists capable of administering and operating Sikkim's medical services was developing. Rather ironically, more indigenous Sikkimese occupy the higher ranks of the public health service today than was the case in independent Sikkim before 1975.

The first generation of Sikkimese biomedical practitioners were not fully qualified doctors. Men like Bo and Tonyot Tsering held sub-assistant surgeon rank in government service. But by the 1940s, a new generation of qualified doctors began to emerge. They were largely from the small group of Western-educated Lhopa Sikkimese who formed a bureaucratic class serving the Chogyal and colonial governments. This

class had come to an accommodation with the British, and with their primary identity being Sikkimese and Buddhist, they were not a part of the nationalist struggles and religio-political divisions developing in India. As a cosmopolitan elite at home in British or Tibetan society they were able to benefit from the crucial role they played as intermediaries between their neighbouring powers, Tibet and British India. Thus individuals such as Bo and Tonyot Tsering (who will be discussed in more detail later), were vital to the British medical project in Tibet, and in return they gained advanced social status at home through their activities and employment with the leading regional power.

Among the new generation of medical practitioners to arise from this class were Tonyot Tsering's son Dr. Pemba T. Tonyot, who became the first Sikkimese anaesthetist. Others from this social class were Dr. Kazi Tendup, who may have been the 1st Sikkimese to qualify as M. D.,[136] and Dr. Tsewang Paljor (a descendent of Raja Tenduk Paljor, whose estates had extended to Darjeeling), who was the first Sikkimese to qualify as a surgeon. The close links between members of this class are illustrated by the fact that the wife of Bo Tsering's son, Dr. Leki Dadul, was the first female doctor in Sikkim, graduating from Calcutta around 1955.[137]

The careers of these individuals tended to follow a similar pattern, and they shared ideals of duty and service that had been reinforced by the educational and professional structures of British imperial rule. Dr. Pemba T. Tonyot, for example, was educated at the Gangtok Tashi Namgyal school. His father had hoped he would follow him into medicine and he did so, 'being religious minded and seeing it as a noble profession'. After matriculation Dr. Tonyot obtained a BA in science before going on to qualify as MBBS in Madhya Pradesh. In 1966, he graduated as an anaesthetist and was posted to STNM Hospital in Gangtok, replacing an Indian doctor. He later became a medical advisor to the Government of Sikkim before retiring in 2003.[138]

His near-contemporary, Dr. Tsewang Paljor, was similarly schooled in Gangtok and then St Joseph's school in Darjeeling where he studied science. Recognising the shortage of medical personnel in his native land and the opportunity he had to serve there, he then applied to government and was selected for medical training in Andhra Pradesh, graduating MBBS in 1968. After returning to Sikkim to serve in the STNM Hospital, he was sent in 1972 to take a masters degree in surgery at the Postgraduate Institute of Medical Education and Research at Chandigarh, then returned to Gangtok as the first Sikkimese surgeon, again replacing an Indian serving on contract.[139]

But Sikkimese from other social groups also found careers in medicine. Sonam Dorji was not from such a privileged background, but was selected by the Political Officer Basil Gould to study at High School in

Gangtok. Then, in search of adventure, he headed off to join the Gurkhas, fighting at Imphal against the Japanese forces in 1942 alongside Victoria Cross winner Ganju Lama. On his return to Gangtok, he remembers that, in recognition of his services, the new Political Officer Arthur Hopkinson offered him any position he wanted, and he opted for medical training at Campbell Medical College. He went on to serve at the dispensary attached to what were now the Indian Government diplomatic posts in Tibet during the early 1950s and subsequently served in north Sikkim, before retiring with wife Namgay Dolma in 1989.[140]



Dr. Sonam Dorji IMS and his wife Namgay Dolma

Dr. Lobsang Tenzing, a nephew of Dr. Norbu who was killed in the Gyantse floods in 1954, was from a somewhat different background. Originally from the village of Mangan in north Sikkim, he was the son of the Christian pastor there, although himself a Buddhist. The Tenzing family placed great emphasis on modern education, and after finishing second on the merit list in his matriculation at Gangtok , he was sent to NRS Medical College in Calcutta, completing his MBBS in 1963, the first of his Lepcha-Bhutia community to do so. He was posted to the STNM hospital that year, and then became medical officer at the Mangan hospital from 1967-1971. Dr. Lobsang eventually retired as Director-cum-Secretary of Health in 1995, having been the first local doctor to reach this position.[141]

Along with the doctors and licensed practitioners, the (until recently all-female) profession of nursing also developed in Sikkim, albeit that the profession is still not of particularly high status. One example of a nursing career in this period is that of Nurse Sonam Eden ('Phigoo'). In 1954, having reached 7th grade in Mary Scott's school and then at some fifteen years of age, she and her contemporary Pabita Pradhan were sent to Kalimpong under the state Five Year Plan to train as nurses. They trained under the Scottish missionary Dr. Albert Craig, a man of very high standards who Phigoo remembers as strict and short-tempered in contrast to the 'Mother Theresa' figure of Mary Scott. On her return to Gangtok, Phigoo was posted to the STNM Hospital where she remained until retiring in 1995 after 40 years service.[142]

The modern Sikkimese medical world

In Sikkim today, the Sir Thutob Namgyal Memorial Hospital straddles a main Gangtok intersection. As of 2000, it was a 300 bed hospital, with 78 doctors on staff including 36 specialists. In 1999, 351 major and 984 minor surgical operations were carried out there. Plans have been advanced for a new 500-bed hospital as patient numbers continue to increase; to around 140,000 in 1999.[143] While Sikkim is part of India, most of its medical personnel are born in Sikkim. For medical purposes, the state is divided into four districts, each under a Chief Medical Officer who is also head of the central hospital in that district. A network of primary health care centres and sub-centres exists in each district,[144] and medical services remain largely free.[145] A subjective judgement considering patient-doctor relations, service morale, non-elite class access, and not least financial probity, as well as numerous statistical indicators,[146] would suggest the Sikkimese today enjoy among the best biomedical services in India.

However, while biomedicine has been indigenised both in terms of structures and personnel, it has not displaced the local medical practices, which continue to be the first resort for much of the population.[147] While medical reports from the colonial period in Sikkim make virtually no mention of the indigenous practices, as late as 1969 it was noted of the Sikkimese that, 'of late they have started realising the efficiency of the scientific treatment as evidenced by their ready acceptance of injections and vaccinations and the rising attendance at hospitals and dispensaries'.[148] Such optimistic rhetoric is, as will be seen, typical of biomedical reporting, particularly by newcomers to a region. In practice, however, medical pluralism is characteristic and in Sikkim it has been driven by an unexpected source. We have noted the influence of the compounders as agents of biomedicine, but they may also repre-

sent traditional medical knowledge and practices; a report from 2001 describes how compounders

> are very often also traditional faith healers. In a typical blend of tradition and modernity; they work in a hospital or health centre during the day, but perform the traditional tasks of a faith healer in the evening.[149]

One other 'blend of tradition and modernity' emerges from the use of techniques from one system by practitioners of another. Thus 'traditional' village bone setters may use x-rays, while biomedical practitioners incorporate local cultural understandings by, for example, allowing patients to choose an auspicious date for elective surgery in consultation with the appropriate Buddhist monks. Biomedicine continues to gain acceptance, with modern technologies such as CAT scans and ultrasound improving diagnosis, and thus treatment and acceptance, but non-biomedical systems are unlikely to die away. During the last decade, medical pluralism has been institutionalised in Sikkim, albeit not to the extent known in contemporary Bhutan. But the STNM Hospital does have an *amchi*, and outside of the state sector there is now, in addition to Ayurvedic and Homeopathic clinics, a branch of the Dharamsala Men-ze-khang.[150] This opened in 2004 offering 'Tibetan medicine', and there are also private practitioners offering services in this tradition. Medical pluralism is thus established, but Sikkimese traditions are under pressure from both Tibetan and Indian Traditional Medicine as well as biomedicine!

Conclusions

Christian missionaries did make a significant, albeit limited, contribution to the introduction of biomedicine into Sikkim. During the latter part of the 19th century, with the imperial government clearly intent on breaking down the isolation of Tibet and missionary dispensaries being established in Sikkim, the Himalayan missionaries' dream of evangelising in the 'Forbidden Land' must have seemed a realistic one. But the opening of Sikkim and later Tibet did not bring the expected results. Missionary access to Sikkim was restricted and the Government of India refused to allow them to cross the frontier into Tibet.[151] The CSM missionary Rev Evan Mackenzie, for example, who had been in Kalimpong since the mid-1890s, was allowed to accompany Tibet's second-highest religious figure, the Panchen Lama, on his tour of India in 1906-07 to advise on matters pertaining to the Christian religion. But in 1908, when he requested permission to reside near the Political De-

partment's post in Gyantse, it was refused.[152] Their continuing exclusion from all but the southern districts of Sikkim must have made it clear to the missionaries that the imperial government opposed their presence in the frontier districts, and with the Political Department making its own educational and medical initiatives in Tibet, the missionaries services in this regard were not required by the imperial government.

Subsequently, in regard to Tibet, the Political Officer Charles Bell in 1921 recommended that the number of European visitors to Tibet should be gradually increased, although as any 'Christian missionary criticising Buddhism would', he claimed, 'be attacked and possibly killed', it was agreed that 'sportsmen, missionaries, and undesirables' should continue to be excluded.[153] But after the Rev Mackenzie had been permitted to cross the frontier to Yatung in 1922 for the wedding of the British representative David Macdonald's daughter,[154] and then to travel on to Gyantse, missionaries were occasionally allowed into Tibet. Mackenzie returned on several occasions, Dr. Graham travelled to Yatung in 1927, and later Drs Knox, Craig, and others were permitted to travel on the trade route to Gyantse.[155] They were not, however, permitted to evangelise or to establish any permanent structures or institutions in Tibet, and there is no record of their carrying out any medical work there.

With the greatly reduced missionary influence, the colonial state played a greater role in Sikkim than it did in Kalimpong. But having alienated the local elites in the early years, John Claude White was able to make little or no political use of medicine. In the absence of any significant imperial government funding for Sikkimese public health development White had to first transform Sikkim into a revenue-raising state. Only when internal funding sources were created could the development of government structures such as a public health system begin. This meant that biomedicine made little impact on Sikkim in the final decade of the 19th century.

More sophisticated Political Officers such as White's successor Charles Bell recognised that biomedical services could gain support for the colonial project. Bell followed a policy of befriending the local elites and encouraging them to gradually transform their state through the development of modern institutions such as schools and hospitals. The royal patronage dating from this period provided an important symbol of Sikkim's acceptance of biomedicine, and the indigenisation of medical structures and personnel was to provide a firm foundation for later development. The existence of a body of Sikkimese educated on the Western model was crucial to this process, which was to fail in Tibet where such individuals were virtually non-existent until the late 1940s.

The initial appointment of a low-ranked SMD Civil Surgeon to Gangtok when the medical officers in Tibet were IMS officers effectively separated medical developments in Sikkim from those in Tibet, to which the Government of India always devoted greater resources. Their respective status was also expressed in racial terms; at least from the time of Dr. Dyer, and probably earlier, the Gangtok Civil Surgeon was a Eurasian. But in focussing the work of the Civil Surgeon more on medical rather than political issues, the development of biomedicine in Sikkim may have been stimulated. It was less obviously a foreign system, and Sikkimese were, as a result of their education, better informed as to its conceptual universe than their Tibetan and Bhutanese neighbours.

While there was a significant contribution from the missionaries, it was the Sikkimese state that largely funded the biomedical development process and it was only their shortage of funding that limited – and indeed continues to limit – the spread of biomedicine. But while the continuation of traditional medical practices is in part due to the structural restrictions on biomedicine, it is also a reflection of cultural survival among the various groups making up Sikkim today. But nationalism, or the nationalist struggle for independence from European rule, does not appear to be a medical issue that has hindered the spread of biomedicine in Sikkim. The complex issues of identity in a multiracial society manifest in many areas, but turning to biomedicine apparently transcends ethnic and national identities.

This may reflect British colonial understandings and policies in Sikkim. With the establishment of an alliance of interests between the British and the Sikkimese elites, the Sikkimese became something of a favoured class. They were both liked and rewarded by the British for their role as intermediaries in Tibet and the Sikkimese found little attraction in the Indian independence movement, with their eventual absorption into India deriving from demographic changes. With the Nepali community owing their presence to British patronage and the non-elite Lepcha and Limbu largely left to their own devices by the colonial government, biomedicine did not become a political issue in Sikkim.

As will be seen in the ensuing chapters, the central themes that arise from the biomedical encounter in Sikkim were repeated in Tibet and Bhutan, but only in Sikkim was biomedicine indigenised in the colonial period.

3 Biomedicine and Buddhist Medicine in Tibet

Missionary beginnings

On Sunday 12 June 1707, two Capuchin missionaries arrived in Lhasa, which was then a cosmopolitan city,[1] albeit with little or no knowledge of the far-off European powers. Granted an interview with Tibet's Regent, the missionaries stated that they, 'were doctors and wherever they went they practiced medicine for God's sake'.[2] The pair were allowed to stay in Lhasa and Friar Francis Mary of Tours, who unlike his companion actually did have some medical experience, began to treat patients. His reputation grew rapidly; among those who came to him for treatment was the personal physician of the Regent and the Dalai Lama,[3] and his achievements were reportedly even mentioned in the *Peking Gazette*.[4] After Friar Mary returned to India, his successors continued the practice of medicine in Lhasa, finding it a ready means to gain the local peoples' trust, something that was essential to their efforts to convert the Tibetans to Christianity.

A Friar Dominic, who for ten months in 1710-11 was the sole Capuchin in Lhasa, treated 80-90 patients a day, including both the Regent's wife and the Chinese representative in the Tibetan capital. Friar Dominic's success was apparently such that both the Chinese and the Mongols wanted him to accompany them to their homelands, and eventually he had to flee to India to escape their demands.[5] Before his departure, however, he taught his medical skills to Friar Joachim of Anatolia, who soon came to enjoy similar success and status, and when Joachim left for India in 1733 he received a letter of thanks from the Regent. Later Friar Joseph Mary of Gargnano continued medical practice in Lhasa, but the Capuchins had made few converts and were becoming increasingly unpopular as a result of their intolerance to Buddhism. The mission closed for the last time in 1745.[6]

Despite their failings in the religious sphere, the Capuchins' medical achievements would seem to have been considerable. Even allowing for the fact that their accounts doubtless accentuate the positive, it appears from their patronage by Tibetan, Mongol, and Chinese elites that the

missionary doctors gained a high reputation. While there are few mentions of the actual conditions successfully treated by the Capuchins, it appears that in general terms, even in this period when European medical knowledge had little scientific basis, Western medicine could successfully compete with indigenous Asian medical systems.

We know that this success was not based on a superior European pharmacology, for we read that; 'Luckily medical herbs grew in abundance around Lhasa or could be easily procured from the local market ... This enabled the missionary doctor to continue his practice even when the supply of medicines brought from Europe ran out'.[7] The Capuchins' success apparently derived from knowledge or practices superior to, or at least different from, those of the indigenous systems, and an ability to cure illnesses for which there was no known local cure. Their strengths included more advanced technology, for we know that the Capuchins possessed simple surgical tools and that their presents to the Dalai Lama in 1724 included a microscope.[8] While evidence is lacking in European sources, the Capuchins may have contributed to Tibetan medical knowledge, and it seems likely that their success initiated some Tibetan understanding of Europeans as possessing a high degree of medical skill.

Early Western medicine in Tibet

Thirty years after the Capuchin's final departure from Lhasa the first emissaries of the British empire arrived in Tibet. After receiving correspondence from the Panchen Lama over the status of Cooch Behar (lying between Bengal and Bhutan), the Governor-General in Calcutta, Warren Hastings, despatched an envoy, the Scotsman George Bogle, to the Panchen's Shigatse court. Bogle was accompanied by a surgeon, Alexander Hamilton, whose major role was a diplomatic one, something that was to be characteristic of later British medical officers in this region. Hamilton did, however, in regard to Tibetan medical practice, conclude that:

> I am ... afraid [medical] science will benefit but little by any knowledge of the Tibetan practice as the inhabitants of that country seem to be much further behind the Europeans on the progress they have made towards the advancement of medical knowledge than in most other arts or sciences.[9]

However, Hamilton acknowledged that the Tibetans were skilled at cataract operations, something that was later to be a British speciality. In an interesting indication of the relative states of knowledge at that time

he credited this to superior common technology rather than technique, concluding that:

> Though their method of treating some disorders of the eye is more successful than the one we follow, we cannot infer from thence that they have a more powerful knowledge of the nature of the disorder or are better acquainted with the structure of the organ upon which they operate than we are; in reality they are entirely ignorant of both, this remarkable success which attends their method of couching the cataract being solely owing to their instruments being much better calculated for that purpose than those we use. Enclosed I send you the only two instruments used in the operation. The copper one, for depressing the crystalline lens ... and I should be happy to have two or three lancets like the enclosed which is used for dividing the external coats of the eye. Any of your sircars could get both in the [Calcutta] bazaar.[10]

Bogle and Hamilton actually found much in Himalayan society that they admired and their encounter with the Tibetans was largely free of the colonial power contexts that later arose in relations between Britain and Tibet. The Panchen Lama was then a powerful regional leader and he was also an agreeable host with a considerable interest in the outside world. At one point, he held a lengthy discussion with Hamilton about smallpox and although its contents were not recorded,[11] Hamilton may well have introduced him to the Western concept of vaccination. Certainly Bogle gave the Panchen Lama a written account of Europe including a section on Western medicine which described how English physicians were trained and practised a form of public health. He noted:

> The smallpox used formerly to be fatal in England. About 70 years ago inoculation was introduced by a person who had travelled in Turkey. Since that time all the better sort of people inoculate their children. Not above one in a hundred dies of it.[12]

Bogle's work was translated into Tibetan, and was 'for many years the standard Tibetan account of Europe',[13] but Bogle, Hamilton, and the Panchen Lama all died within a few years of this mission. Although Hastings sent a new envoy, Samuel Turner (accompanied by the physician Robert Saunders), to Shigatse in 1783 to meet the new incarnation of the Panchen Lama, these exchanges had little long-term effect and Anglo-Tibetan contacts subsequently lapsed.

During the 19^{th} century, just three Europeans were able to reach Lhasa. Two were French Lazarist missionaries, while the third was Charles Manning, an English aristocrat who posed as a monk-doctor. His medical abilities gained him the patronage of a Chinese general in whose party he travelled to Lhasa in 1811. Manning gained such repute that, like the Capuchins, he was called on to treat the Dalai Lama's personal physician, but the encounter proved an unfortunate one. The physician declined to take the medicine provided on the grounds of its unpleasant taste and smell, and subsequently died.[14] Manning left few details of his medical work, however, and was an eccentric individual whose visit was of no lasting significance.

While no other Western medical practitioners reached central Tibet during the 19^{th} century, European travellers and missionaries were treating Tibetans in the border areas and some Tibetan traders and pilgrims doubtless encountered Western medicine while travelling in India and other lands, in addition to which, as noted, some private import and use of Western medical pharmaceuticals seems to have commenced. But at the dawn of the 20^{th} century, Tibetan knowledge of Western medicine must have been a miscellany of empirical impressions and often dated hearsay.

Medical work on the Younghusband mission (1903-04)

By 1903, Lord Curzon had decided to force the Tibetans to enter into relations with British India and he selected a Political officer, Colonel Francis Younghusband, to lead an imperial mission to establish British influence at Lhasa. The modern weaponry of the imperial army overwhelmed Tibetan resistance and in August 1904 Younghusband's forces entered Lhasa. The Dalai Lama had fled north into Mongolian exile, and Younghusband forced the remaining Tibetan authorities to sign a treaty opening their state to British trade and diplomatic communication. The mission then withdrew to India.

During the Younghusband mission, the primary medical concern for the British was of course the health of the imperial forces – men and animals – who suffered badly from the cold and hostile conditions on the Tibetan plateau. But while leading what was in effect a military invasion, Younghusband was conscious of the ultimate need to transform Tibet into a British ally. He thus endeavoured to use military force only when necessary, and within the practical limitations of an armed invasion he sought means to convince the Tibetans of the ultimate good intentions of the British. One obvious means of doing this was through the provision of free medical services and a travelling dispensary accompanied the mission to treat Tibetans.[15]

The chief medical officer on the Younghusband mission was nominally Lt-Colonel L. Austine Waddell (1854-1937). A Glaswegian IMS officer and veteran of numerous military campaigns, he had served as a medical officer in Darjeeling for seven years. Waddell's concerns were actually more academic, as befitted the author of the then highly regarded *The Buddhism of Tibet, or Lamaism* (1897). As the oldest member of the mission, Waddell devoted himself to collecting artefacts and manuscripts and there is no record of his ever practising medicine in Tibet. But Waddell, who was not highly regarded by most of his contemporaries on the mission, did join the other medical officers in a tour of the Chakpori medical college in Lhasa. He recorded that the head of the college responded to his enquiries into the underlying philosophy of the Tibetan medical system with answers that were 'saturated with absurdity'.[16]

Waddell left the IMS after the Younghusband mission. By 1906, he was considered 'too eccentric and impracticable' to act as a Tibetan language examiner in the Political Department and his academic output became increasingly concerned with Aryan race theory. By the 1930s, he had embraced fascism,[17] and his accounts of Tibetan Buddhism are most notable today for the repugnance he expressed for many aspects of his subject. Yet his account of meeting the Abbot of Ganden monastery, who was then acting as the Tibetan Regent, is more sympathetic. Waddell repeated the Regent's trenchant criticisms of the British, perhaps because the reluctant physician Waddell liked the Regent's conclusion that 'except [for] you doctors, of whose humane work I have heard; ... all the others [on the mission] are utterly devoid of religion'.[18] The context suggests the story was true and that the mission dispensary had gained at least some goodwill.

With Waddell otherwise engaged, it was actually left to another of the fifteen medical officers on the mission,[19] Captain H.J. Walton IMS, to run the Tibetan dispensary. The necessary equipment was received in March 1904, and the dispensary moved with the mission on its way to Lhasa. It found few civilian customers at Khamba Jong and Tuna, where Walton only, 'managed to persuade a few of the residents ... to bring their children to camp and vaccinated about eight of them'.[20] They were more successful in Gyantse, treating 81 Tibetan civilians there,[21] but with the Tibetan army now resisting the British, their work was mainly with Tibetan battle casualties.

The *Daily Mail* correspondent, Edmund Candler, reported that, 'for nearly two days, Lieutenant G.I. Davys, Indian Medical Service, was operating nearly all day', with 168 wounded treated, of whom 'only 20 died'. Candler, who later lost a hand to a Tibetan sword swipe, wrote that; 'I think the Tibetans were really impressed with our humanity, and looked upon Davys as some incarnation of the medicine Buddha.'

He also expressed the regard the British developed for their opponents, noting that; 'Everyone who visited the hospital ... left it with an increased respect for the Tibetans and their bravery.' Candler told of; 'One man, who lost both legs ... [and joked that] 'In my next battle I must be a hero, as I cannot run away.''[22]

Tibetan perspectives were doubtless somewhat different. But British accounts of the Younghusband mission invariably note how wounded Tibetan soldiers taken prisoner by the British expected to be executed, and how they were amazed at being given medical treatment by their captors.[23] That this did create a good impression was confirmed by the American missionary, Dr. Shelton in Batang, who met one such officer treated by the British. Shelton described British efforts as having 'made an indelible impression on the whole country', and as having influenced the leading Tibetan official in eastern Tibet, the Kalon Lama, to subsequently care for wounded Chinese prisoners.[24] But while treatment of wounded prisoners probably did make a positive impression (and was culturally compatible with Buddhist understandings of compassion), the treatment of wounded prisoners by Tibetans was not, historically, necessarily brutal. Certainly accounts of Sino-Tibetan conflicts suggest prisoners were frequently executed. But after Zorowar Singh's unsuccessful invasion of western Tibet in 1841, some of his Sikh troops were apparently so well treated by their captors that they chose to remain in Tibet after being freed![25]

That British medical endeavours did win goodwill is also suggested by Captain Walton's report in regard to the biggest British military reverse of the campaign, a night attack on the Younghusband mission headquarters at Gyantse. Walton states that the British were prepared for this thanks to a warning given 'the preceding day by patients of the dispensary', apparently implying a specific warning from grateful patients. The London *Times* correspondent, however, only refers to a sudden exodus of patients arousing Walton's suspicions and makes no mention of a given warning.[26] Tibetan civilians were certainly beginning to take advantage of the British medical facilities. A woman who had been operated on for cataracts prior to a two month period of intermittent fighting in Gyantse returned as soon as the fighting ended in order to receive the spectacles she had been promised.[27]

The British opened their medical dispensary in Lhasa on 16 August 1904, thirteen days after Younghusband arrived there. It remained in operation until 22 September, the day before the mission left Lhasa. During that time it treated 615 patients (259 men, 211 women, and 145 children), and carried out 34 major operations, including thirteen for cataracts.[28] Captain Walton's report states that the dispensary 'was very popular from the beginning, all classes of people attended: Tibetans, Chinese, Nepalese, and Kashmiris', and he also noted that, 'Lamas

from the Monasteries formed quite a large proportion of the total number'. News that all races, classes, and most importantly the socially influential monks were turning to British doctors was just what Walton's superiors wanted to hear, but there were apparently some reservations on the part of the Tibetan authorities. While no restriction was placed on the general populace and even the monks attending the dispensary, Walton noted that:

> Three Tibetans of high rank pitched their tent in the compound of the dispensary and remained there for several days while under treatment. It was necessary for these three men to obtain special sanction from the National Council before they were allowed to seek advice and treatment.'[29]

Unfortunately there is no British record of the precise identity or status of the officials concerned. Thus it is difficult to ascertain if Tibetan objections here were based on opposition to Western medicine, or simply, as seems more likely, to their high-ranking officials associating with the invaders during negotiations.

Throughout the mission Walton was assisted in his medical duties by medical officers from the 8th Gurkha and 40th Pathan regiments, among others. In view of later developments and understandings, one notable feature of Walton's report was the stress he laid on the good performance of an Indian hospital assistant, Hira Singh. Walton stated that:

> I consider that the popularity of the Civil Dispensary ... was very largely due to the great kindness, patience and tact displayed by this Hospital Assistant and to the very painstaking and conscientious manner with which he devoted himself to his work.[30]

As Younghusband's forces withdrew south to India, the British took the opportunity to despatch a small party of officers on a survey mission that travelled west to the remote hamlet of Gartok (near Mount Kailas), where the Government of India planned to establish an outpost. Hira Singh accompanied the four British officers on the mission as their medical assistant, and it was reported that he had; 'rendered excellent service throughout. By the energy he displayed, the skill with which he treated Tibetan patients, and his ever cheerful and pleasant manners, he proved himself a valuable man.'[31] Yet despite Singh's performance, Indian medical staff were soon to be excluded from Tibet.

The Gyantse dispensary

The treaty Younghusband signed in Lhasa gave the British the right to station representatives in Tibet and Younghusband's trusted assistant, the Tibetan-speaking Captain W.F. O'Connor was selected as the first British agent there. In deference to the Tibetan desire to maintain their isolation, and with the British Government at Whitehall reluctant to sanction any continuing imperial involvement in Tibet, O'Connor was left not in the capital city, but at Gyantse, 120 miles southwest of Lhasa. There the Government of India opened a so-called 'Trade Agency', which, as the selection of O'Connor as 'Trade Agent' indicated, was in fact a diplomatic post. For O'Connor was an officer in the Political Department, and their concern was diplomacy, not trade.

Smaller Trade Agencies were also opened at Gartok and at Yatung in the Chumbi Valley just across the frontier from Sikkim.[32] The Gyantse Trade Agency became the centre of British activities in Tibet for the next thirty years because no British officer was permitted by Whitehall to visit Lhasa until 1920, and a permanent mission was only established in the Tibetan capital in 1936-37. The Gyantse and Yatung positions were under the authority of the Sikkim Political Officer in Gangtok, while the Gartok Agency, a remote and peripheral affair of little more than symbolic importance, was under the control of the Punjab Hill States until the 1930s, when it also came under the Sikkim Political Officer's control.

In Gyantse, O'Connor was housed in a fort with a 50 man military escort of Indian troops under a British officer, as well as European clerical and communications staff. In addition, it was decided to establish a medical dispensary under the command of an IMS officer. The first medical officer appointed to Gyantse was Lieutenant (later Lt-Colonel) Robert Steen, who had served on the Younghusband mission (although he does not appear to have travelled as far as Lhasa). His background was typical of British IMS officers. Born in Ulster in 1874, the son of a farmer, Steen had been educated at Queens College Belfast and took his MBChB at the Royal University of Ireland before entering the IMS. Steen presumably knew his fellow Ulsterman, Trade Agent O'Connor, when he was appointed and when he applied to transfer from the military to the political cadre, O'Connor provided a reference stating that Steen was 'exceedingly' popular with the British, and 'wonderfully popular with all classes of natives'. Overall, it concluded, Steen was an officer 'decidedly above average'.[33]

O'Connor's main task in Tibet was to befriend the Tibetans, to influence them to follow policies beneficial to the interests of British India. Although he was based in Gyantse, the main target of his attempts to form an alliance with the Tibetan elites was actually the Panchen Lama

at Shigatse. In the absence of the exiled Dalai Lama, the Panchen was the highest authority in Tibet, and within days of the opening of the Gyantse Trade Agency on 1 October 1904, O'Connor set off to visit him. Steen accompanied O'Connor and established a temporary dispensary in Shigatse which treated 'between 500 and 600 cases' in the eight days of its operation. After returning to Gyantse, Steen filed a report that listed nine common conditions reported at the dispensary, of which eye diseases and rheumatism were the most common. Noting that he had already been consulted by two patients from Lhasa who had previously been treated there by Captain Walton, and that he expected patients to follow him from Shigatse, he concluded that; 'It will be seen ... what a large field there is for medical and surgical work.'[34]

A large house in the bazaar was rented for use as the Gyantse dispensary. It officially commenced operations on 1 November 1905, opening daily from 9-11 a.m. for outpatients. The medical establishment there during the 1905-10 period consisted of the British IMS officer, a Hospital Assistant (Dhyan Singh), compounder and dresser (Muna Singh), a translator and a Khalassi (vet), along with a sweeper and a coolly. The status of the British officer was clearly expressed in financial terms. He received an annual basic salary of 7,200 rupees, while the indigenous employees received 1,400 rupees between them.[35]

The medical officer's primary duty was the care of the British staff and the Indian Army personnel and his day began with the military detachment's 'sick parade'. Only soldiers in medical category 'A' (the very fittest men), were posted to Tibet, and the environment was generally far healthier than in most of India. But the cold and constant dust meant respiratory diseases were common and several soldiers died there. Treatment was rudimentary, there was a five-bed hospital in the military section, but it was only equipped for routine medical work.[36]

Medicines were supplied to Gyantse by the Government of India, but financial considerations were always paramount in the imperial administration of the posts in Tibet. That meant that there could be large discrepancies between the equipment and medicines requested by the Gyantse medical officers and the actual supplies received. In 1907, for example, a precise and detailed list of 60 required specialist surgical items was submitted, but a greatly simplified and considerably more economical list of fifteen items was actually sanctioned.[37]

The political purpose of the British dispensaries was clearly articulated from the start. Providing free medical treatment to all classes of the local people was intended to engender indigenous goodwill towards the British that could be translated into diplomatic advantage. When O'Connor first submitted a proposal for the dispensary (which had obviously been discussed earlier with Younghusband), an official noted

that 'the dispensary will doubtless be politically advantageous' and Younghusband himself certified that 'it is extremely desirable on political grounds.'[38] O'Connor subsequently described

> the valuable political effect produced by the medical treatment of the natives of the country by our doctors. It is a revelation to a backward ignorant race like the Tibetans to find that their conquerors carry humanity to such as extent as to provide them with free medical attendance, and that such marvellous cures can be effected (as for instance cataract, etc.) in the case of diseases and disfigurements which they regarded as incurable and permanent.[39]

The political value of the medical officer's presence was to be a constant refrain in reports from Tibet throughout the British period. Their work was described as being 'of great political value' and the dispensary as, 'doing useful work both from a medical and a political point of view'.[40] It was explained in internal correspondence that although the Gyantse medical officer was 'officially only M.O. to the [military] escort here his work is largely political',[41] and on several occasions the political nature of the medical officer's work became explicit. As noted, in 1909 Tibet was no longer a significant issue in British Indian diplomacy and so ambitious Political Officers preferred service elsewhere. From June to December 1909, in the absence of a suitable diplomatic candidate for the position as Gyantse Trade Agent, Captain Robert Kennedy,[42] Gyantse medical officer from 1907 to 1910, actually served as both Trade Agent and medical officer, a situation which recurred when the medical officer Captain R.L. Vance acted as Trade Agent for the last six months of 1926.

Even the remote Gartok Trade Agency and its Indian medical staff had an explicit political role. In 1928, Dr. Kanshi Ram, for example, attracted favourable attention by capturing a bandit who attacked his party, which included a British officer on an inspection tour. At the officer's suggestion, Dr. Ram was made Gartok Trade Agent in 1929 and he served in that post until 1941.[43] In addition, after Indian independence, Dr. M.V. Kurian, a Gyantse medical officer in the 1940s, was offered the position of Gartok Trade Agent, but having recently married, he declined the remote posting.[44]

The attributes necessary for a medical officer to be considered a political asset in the imperial system were similar to those considered desirable for a Political Officer. Indeed in the 1930s the Sikkim Political Officer J.L.R. Weir said of one medical officer (Dr. M.R. Sinclair), that, 'as a political asset I have found him of more value than any of the British Trade Agents during the past four years'![45] To some extent, the

British believed the necessary qualities were provided by the imperial selection process, with both Political and medical officers in this period almost invariably selected from youths educated in British public schools such as Winchester, Marlborough and the Edinburgh Academy. Family ties to imperial service in India were common, as was a sense of 'mission' allied to confidence in the righteousness of the imperial project. Both groups required individuals with personal qualities that included tact, the ability to get on with all classes of people, and physical fitness. Recommended candidates were described in such terms as 'cheerful', 'temperate', 'a man of strong personality and physique', and 'popular with all classes of Tibetans'.[46]

This last attribute was crucial. Gyantse was remote from the centres of both imperial power and social life. The conditions under which the medical officers lived and worked were primitive, and whereas the Trade Agents could advance to the senior position of Political Officer in Sikkim, a posting to Tibet offered little in terms of career advancement for the medical officers until the creation of the senior post of Civil Surgeon Bhutan and Tibet in 1940. Thus it was necessary for both personal and professional reasons that medical officers enjoyed the company of Tibetans and the challenges of medical practice in the prevailing culture and conditions.

A successful medical officer, such as Major James Guthrie, who served in Lhasa from 1945 to 1949, was the type of person who, 'had a great respect for many of the lamas ... and became personal friends with several'.[47] He also found, as his wife described, that

> disease was seen at almost every stage of progression as not found in Britain nor the West where it would have been arrested. Of course, this was medically interesting and James once said to me that many Western professors would be thrilled to *see* many cases that they had only read about themselves.[48]

Yet while a number of Political Officers devoted the majority of their career to Tibet and became specialists in its history and culture, few of the IMS officers seem to have displayed that level of commitment. Of the seventeen British doctors who served in Gyantse, only four remained for more than the usual two year term and none served longer than three years. In contrast, Political Officers such as Sir Charles Bell and Sir Basil Gould remained on the Tibetan frontier for many years. It was not difficult for medical officers to obtain a transfer to a less isolated post and as nine of the medical officers served less than the standard term it appears that at least some of them were keen to get away.[49]

That medical officers' career prospects were unlikely to benefit from service in Tibet may have been a factor here, for doctors such as Steen and Kennedy in the early years, and Sinclair and Morgan in the 1930s appear to have enjoyed their service there and performed well. With the creation of the senior Civil Surgeon position, two officers did remain for longer than two-year terms. The first was Lt-Colonel James Hislop, who served as Gyantse medical officer for eighteen months in 1923-24 and accompanied the Sikkim Political Officer F.M. Bailey to Lhasa in 1924. After being mauled by a bear in 1929, he returned to serve in the senior position from January 1942 until he retired in June 1944.[50] His terms in Tibet were marked by increases in patient numbers at the IMS dispensaries and in the amount of work carried out by the medical officer, as well as in greatly improved record keeping. Hislop was described by one Gyantse Trade Agent as having 'survived drinking more at high altitude than was previously thought possible',[51] and he did not get on well personally with Gould, the Sikkim Political Officer. But his interest in and concern for Tibet is indicated by the number of suggestions he made for improving the biomedical and socio-medical situation there.

Major [later Lt-Colonel] James Guthrie was also particularly enamoured of Tibet. Like Hislop, Guthrie was a Scot. Born in Glasgow in 1906, he was educated at Strathallen School near Perth and after a year's preliminary study at the University of Lausanne, he entered Edinburgh University and graduated with an MBChB in medicine in 1930, being commissioned into the IMS the following year.[52] Guthrie's first term in Gyantse from September 1934 to November 1936 was marred by the death of the Political Officer Frederick Williamson during a mission to Lhasa in 1935. But Williamson had already been advised by Dr. Hendricks, his personal physician in Gangtok, that he was suffering from uraemia. Although Guthrie had tried to persuade him to return to India when his condition deteriorated, Williamson felt it his duty to continue. Guthrie was in no way to blame, therefore, and even the reputation of biomedicine may not have suffered in Tibet if we accept the account of a later visitor. The Italian Fosco Maraini reported that the Tibetans believed Williamson's death was due to his having angered powerful deities in a Lhasa shrine by photographing them.[53]

Guthrie seems to have learned a certain amount of Tibetan during this first posting, something few other medical officers appear to have done, and returning to Lhasa in March 1945 as Civil Surgeon he became fluent. This skill must have assisted Guthrie, who was particularly successful both in terms of gaining the goodwill of the Tibetans and in advancing the reputation of biomedicine there. For much of his first year in Lhasa he was the only European there, and the friendships

he developed, particularly with the monastic powers, were of considerable political importance. Hugh Richardson, the Political Officer who headed the Lhasa mission for around eight years in total during the period 1937-50 wrote of Guthrie:

> An apparently growing readiness to undergo operations, and signs of genuine trust in western medicine on the part of some high officials bear witness to Major Guthrie's ability and hard work. He has the advantage of a fluent command of Tibetan and an understanding of Tibetan customs which add to his popularity in a large circle which includes several persons of considerable political importance.[54]

Both Hislop and Guthrie were joined in Lhasa by their wives, another factor that appears to have assisted their social relations with the Tibetans, and Mrs Rosalie Guthrie, who had nursing experience, was able to assist her husband in the Lhasa dispensary. Lhasa was a more congenial posting than Gyantse, however, being a more cosmopolitan and less windswept location, and this may also have encouraged the Civil Surgeons to remain for longer periods.

Issues of race and class

As we have seen, the British Raj placed considerable emphasis on the maintenance of prestige, which was seen as a powerful weapon for the defence of empire. Imperial strategists believed that manifesting an image of power and authority would help deter indigenous resistance and group and individual behaviour was governed by this belief. Given this understanding, the ideal type of officer for service in Tibet was considered to be an individual able to project British prestige, thereby furthering the political objective of convincing the Tibetans that their best interests lay in an alliance with that power. Thus it was considered that; 'a good doctor in Lhasa can do a tremendous lot for British prestige and no mediocre person should ever be sent there.'[55]

To the Political Department, a 'good doctor', one who did well in a political role, had to be of a certain class. The prestige of empire could only, it was believed, be properly represented by the officer class; those who had been educated in particular codes of behaviour inculcated by British social upbringing, public schools, and universities or military colleges. Once in British India, such officers learned additional codes of behaviour considered essential to manifest the necessary prestige and one important skill in this regard was command of the relevant local language(s). A British imperial officer was expected to be able to

communicate to the indigenous people in their language, rather than the reverse.

Effective medical treatment obviously required physicians who were able to communicate with their patients, but, although IMS officers were required to have learned an Indian language, they were not expected to learn Tibetan. Steen had some command of the language, but engaged a Hindi-speaking Tibetan as an interpreter and, after his successor Captain F.H. Stewart[56] reported that neither he nor his hospital assistant spoke any Tibetan, the interpreter's position was made a permanent one.[57] The choice of an interpreter was no simple matter, mere competence in Tibetan and Hindi or English was not qualification enough. As Stewart explained:

> It is ... highly desirable for the extension of friendly relations with the people that the Medical Officer should be in a position to be consulted by the better class of Tibetans. To have to employ a man of the coolie class as interpreter in regard to their private affairs would be sufficient to entirely prohibit such consultation.[58]

O'Connor's request for a permanent interpreter therefore stressed that he be 'of respectable birth, and attainments'.[59] Karma Paul, a clerk for the Deputy Commissioner of Darjeeling who had been educated both at Ghoom monastery and the Darjeeling High School, was appointed to the post.[60]

While class was fundamental to the imperial construction of prestige, race was also highly significant, particularly in the early 20th century. As a result, despite the acknowledged talents of the Younghusband mission medical assistant Hira Singh, even qualified Indian doctors were excluded from Tibet in any but the most junior posts (e.g., as compounders). The Political Department objected strongly when it was suggested that Steen's replacement in Gyantse should be one Captain D.P. Goil, an Indian. It was claimed that; 'On political grounds it is important that the Medical Officer in a pioneer post like Gyantse should be a European.'[61] Goil's appointment was thus cancelled and Stewart, a Scotsman, replaced him.

In rejecting 'Indians', the Political Department were actually referring primarily to Hindus, who made up the vast majority of the population of British India (with numerous Muslims being in Princely states). The Himalayan Buddhists were not regarded as 'Indians', as can be seen from subsequent recruitment policies. In 1909, claiming that the Indians hitherto used as hospital assistants in Tibet were, 'handicapped by their inability to speak Tibetan, by the difference of their religion and by their ignorance of the habits of the people',

Charles Bell, the Political Officer in Gangtok, recommended training youths from Sikkim to replace them.[62]

While a belief in the racial inferiority of 'Indians' was common at the time, Bell's apparent prejudice may have reflected the belief that Hindu caste restrictions made the essential diplomatic task of socialising problematic for them. Bell certainly displayed no prejudice against Eurasians, who many in the Empire saw as inferior to racially pure Indians. He was a friend of the Anglo-Sikkimese Trade Agent in Yatung, David Macdonald, and in 1920 he was accompanied to Lhasa by the Eurasian Dr. Dyer, until Lt-Colonel Kennedy became available. Traces of the prejudice against Eurasians may be detected in Kennedy's damning Dyer with the faint praise that he was; 'quite good professionally – quite above the average of his class ... quite sound as a G.P.'[63]

A bias against Hindus guided the imperial deployment of manpower in Tibet until the 1940s, when it became increasingly clear that India would become independent, and that it was thus necessary to develop a cadre of Indians with experience in Tibet to succeed the British. But no Indians were ever employed as Political Officers in central Tibet, and even in the medical posts Indians were kept from occupying the senior positions.[64] After 1940, when Lhasa became the effective centre of the British medical project in Tibet and the importance of Gyantse was reduced, there was a transitory period after Captain C.W.A. Searle departed Gyantse in October 1940, with the Eurasian Christian Dr. G. F. Humphreys serving there until March 1944, and then an Indian Christian, Captain M.V. Kurian, taking over. Only when he left in November 1945 were Hindu Indians posted to Tibet.

Bell's suggestion that Sikkimese be trained as medical assistants followed the failure of efforts to recruit suitable Tibetans, something that had long been an issue of concern to the British. Communication between the two peoples required the use of local intermediaries who were familiar with both cultures, and who could explain one to the other. Attempts to develop suitable intermediaries had begun as early as 1874, when the Bhutia Boarding school was established in Darjeeling to train local Tibetan-speaking youths as 'interpreters, geographers and explorers, who may be useful if at any future time Tibet is opened to the British'.[65] The Bhutia school project did not prove to be a success, however. None of the youths from the school were 'found to be of any real service, either as interpreter or in any other capacity' on the Younghusband mission, and when O'Connor was posted to Gyantse he suggested employing suitable local Tibetans and training them to serve the British.[66]

Both the practical needs of day-to-day operations in the Gyantse hospital and the wider aim of modernising Tibet required that Tibetans should take up the practice of biomedicine. In Tibet, as in Sikkim,

Bhutan and elsewhere, the British frontier officers wanted to see indigenous youths trained in Western medicine. They understood medical science as a beneficent and universally applicable system of truths and the modernisation of Tibet, seen by the British both as inevitable and as a process to be encouraged, required the indigenisation of biomedicine. Local practitioners, once trained by the British, could then inaugurate the development of a state medical system, with medical education and training itself becoming indigenised.

As early as December 1904, O'Connor reported that he had discussed the idea of medical training for Tibetans with the Panchen Lama. When the Lama 'cordially agreed, but said the Lhasa Government would have to be consulted', O'Connor asked his government for permission to take four youths, two from Lhasa and two from Shigatse, who would work at the Gyantse dispensary for a year, receive further schooling in Darjeeling, and then be trained in medical work 'as far as considered feasible'. He went on to point out that; 'Apart from the practical good which real Tibetans so trained should be able to effect amongst their countrymen, the political results would also ... prove valuable to us.'[67]

Imperial government, however, was rarely as enthusiastic about such grand schemes as its 'men-on-the–spot'. Both financial considerations and wider global concerns acted as a brake on such plans and the Government of India was evidently reluctant to sanction the increased involvement in Tibetan affairs implied by O'Connor's proposal. It was five months before they replied that; 'you should avail yourself of any opportunity that may occur for encouraging the Tibetan authorities to send [medical] students to India without appearing to press them to do so'.[68] Although O'Connor took this less than enthusiastic response as sanction for his proposal,[69] the fact that he was almost entirely out of contact with the 'Tibetan authorities' in Lhasa meant that he could make no real progress in this regard. The Gyantse dispensary did employ some Tibetan youths for 'menial duties',[70] and it was doubtless hoped that they would be attracted to a biomedical career, but apparently none of them were.

At that time, however, Tibetan trainees were hardly likely to be of immediate value in the medical field because training in Western biomedicine essentially required a Western education. Educated Tibetans learned an entirely different worldview to that inculcated even by British education in India and at that time there were probably no resident Tibetans with a Western education. The processes by which biomedical practitioners were trained in Kalimpong-Darjeeling and Sikkim were therefore absent, and an essential first step towards producing Tibetan biomedical practitioners was the introduction of Western education to Tibet. A series of rather unsuccessful initiatives in that direction were

thus promoted by the British during the ensuing decades. The Yatung Trade Agent David Macdonald and his wife ran a small primary school in Yatung, but the missionary schools in India and Sikkim did not attract Tibetans in the early years, and although four Tibetan youths were sent to Rugby School in England in 1913, the experiment was not a success.[71] An English school existed in Gyantse from 1923-26, but was closed as part of a general Tibetan movement against modernisation at that time, [72] and another operated in Lhasa for a few months in 1944 but also foundered on conservative opposition.[73] Although some Tibetans did send their children to Western schools in India in the 1930s and '40s, only a handful of Tibetans were ever educated in the Western system.

With no Tibetan candidates emerging, Bell made his proposal that two young 'Bhutias' [i.e., Tibetan-speaking Buddhists] from Sikkim be trained in medicine for future employment in Tibet. 'There will', he argued 'be considerable political advantage to be derived from showing the people of Tibet people of their own race doing medical work after being trained in a medical college in India.'[74] As a result of Bell's initiative, the young Sikkimese, Bo and Tonyot Tsering, were sent from a Bhutia school in Gangtok to Temple Medical school in Patna to train as sub-assistant surgeons. Tonyot proved the more able pupil, with Bo initially failing both his second and third year examinations, and Tonyot was posted to Gyantse in March 1913 to assist the medical officer there, Captain G.B. Harland IMS.[75] Bo Tsering eventually qualified and was posted to Gyantse in October 1915, with Tonyot then transferring to take charge of the dispensary at Yatung. As Harland left soon after and was not replaced due to wartime shortages,[76] Bo Tsering was effectively the Gyantse medical officer until a British IMS officer arrived in September 1922.[77]

Although the British maintained a monopoly on the senior medical positions in Tibet down to 1949, Bell's initiative in recruiting Sikkimese to the assistant posts was an extremely significant one. The Tserings served in Tibet for around 30 years and it appears that the Tibetans, at least initially, preferred to consult these Sikkimese, who spoke their language and shared much of their culture. As Charles Bell noted in 1916; 'the two Sikkimese sub-assistant surgeons ... have both done well. ... Being of Tibetan stock, they are trusted by the people'.[78]

While Tonyot generally remained in Yatung, where he was effectively in sole charge of the small dispensary there, Bo served in Gyantse and, after 1936, was usually based in Lhasa, which both he and Tonyot had previously visited with missions by the Sikkim Political Officer. From 1937-40 and on occasion later, Bo was in medical charge at Lhasa, otherwise serving under the Civil Surgeon there.[79] Although the British privately referred to sub-assistant surgeons as 'sub-assistant assas-

sins',[80] they probably shared the joke with the anglophile Tserings, who were highly regarded by their superiors. Both men were awarded the titles of Rai Sahib and then the higher Rai Bahadur, and in 1943 the Sikkim Political Officer credited Bo Tsering with maintaining the Gyantse and Yatung hospitals in better condition than the Lhasa hospital, which was then under Lt-Colonel Hislop's command.[81] But paperwork was not their *forte*. Bo Tsering's annual reports from Gyantse were sometimes less than half a page, and after Captain Morgan departed in February 1937, no medical records were kept in Lhasa until 1942.[82] But administrative skills were traditionally not of great concern to Political Officers, what was of considerably more significance was that Bo's, 'popularity with the Lhasa people is immense'.[83] While what was considered as the innate quality of manifesting prestige was an essential foundation for British officers to serve in Tibet, it was that ability to 'get on' with Tibetans that was vital when stationed there, and which in the British understanding equated to political capital.

An alternative perspective on Bo Tsering can be found in the account of an American aircrew that crashed in central Tibet in December 1943. After ten days, they were met by a party under Bo's command that had been sent from Lhasa to assist them. The Americans were impressed with neither Bo's medical skills nor what they described as his 'high-handed' attitude toward the Tibetan villagers.[84] But under the conditions that then existed in Tibet, medical practice was probably not up to US Air Force standards, and Bo's behaviour towards the villagers may have been typical of that of Tibetan and British officials at the time, and only 'high-handed' from the more egalitarian American perspective. It may also reflect an autocratic behaviour that the British considered consistent with the maintenance of prestige.

On the Indo-Tibetan frontier, these issues of race and class were highly complex processes and cannot easily be reduced to fixed models even at a given point in time. A blurring of identities and a less formal society than that which existed at the imperial centres was characteristic of the frontier, which accommodated a wide range of characters. Individuals surmounted general prejudices, attitudes changed, and pragmatism generally ruled over ideology. But it does appear that in this setting class was a more significant historical agent than race. In the Himalayas, the British found an environment and a Buddhist society that they generally liked and admired, in great contrast to their common view of the Indian plains. After initial hostilities, the British frontier officers, who held high rank in the imperial social structure, got on well with the Himalayan aristocracies, particularly the Sikkimese, but also the Tibetans and Bhutanese. Men like the Tserings were just the kind of cosmopolitan individuals the British hoped their encounter would produce. The British attitude toward these people was, as Lionel

Caplan concluded in regard to their relations with the Gurkhas, 'paternal',[85] but their shared class interests with the local elites united them more than race (and religion) separated them.

While encouraging aspects of modernity the British had no desire to disrupt the traditional Himalayan class structures, and although attitudes changed in the last years of the British presence the elites continued to be seen as the key class in local society. As an IMS officer in the 1940s put it; 'as much as we may dislike autocracy ... one must cultivate the powers in the land if one is to have any influence.'[86] The British did seek to appeal to all classes of the indigenous people, but their primary concern was with the formation of alliances of interest with the local elites in pursuit of political consent. Thus the democratic rhetoric associated with the medical modernisation project masked a two-tier system of biomedicine in Tibet. As Captain Kennedy described,

> most of the patients coming to the hospital belong to a lower social scale ... the better class people naturally dislike mingling with the poorer classes in hospital but they frequently either send for medicines or come and see me privately.[87]

This system, which also pertained in the Indian Princely states, was maintained throughout the British period. While the rest of society attended the dispensary for treatment, the Himalayan elites were able to have private consultations.[88] For both the Tibetans and the British, such social gradations were perfectly normal, but the two-tier system must also have served to indicate to the elites that modernisation did not necessarily threaten their traditional social position, an understanding that assisted in implanting the new medical system within Tibetan society.

The British certainly encouraged the idea of biomedical development as part of the imperial efforts to guide Tibet along the path of modernisation on the Western model. Bell and his fellow frontier officers hoped that they could institute the training of Tibetans in biomedicine, and saw the use of the Sikkimese as a step in that direction. While they had few lasting successes the Tibetans do appear to have favoured the concept of a state public health system centred on hospitals and medical dispensaries. In the period 1910-13, when the 13th Dalai Lama was in exile in India he had frequent discussions with Charles Bell and must have been made aware of the benefits of the system under development in India. After he returned to Tibet, a public hospital – the Men-ze khang (*sMan rtsis khang*), or 'Medical and Astrological College' – was opened in Lhasa in 1916. The treatment system at this hospital was, however, *sowa rigpa*.

The general concept of a free hospital was clearly appropriate to Buddhist ideas of compassion, and its establishment appropriate to the actions of a leader seen as an emanation of Avalokiteśvera. The choice of indigenous medicine rather than biomedicine as the system practised at this hospital might be seen as a nationalist gesture, but we lack sources here, and that decision may have been based on a number of factors, including economics, the availability of personnel, and the political need to gain the support of the monastic powers, whose voice the Dalai Lama would only reluctantly ignore.

There were few other such developments. Public toilets were constructed in Lhasa in the 1920s, but rather than a Tibetan public health initiative this seems to have been at the behest of Rai Bahadur Laden La, a Sikkimese Buddhist police officer in Darjeeling who was sent to Lhasa to institute a police force.[89] Tibetans did not take up biomedicine as a profession in this period, and it was to remain the preserve of foreign practitioners down to the Chinese takeover of Tibet in 1950. But there are occasional references suggesting individual Tibetans taking an interest in biomedicine, a monk in the 1920s, for example, requesting that the British medical officer teach him surgery,[90] and in Lhasa in 1920-21, Dr. Kennedy established links with the Men-ze khang hospital. He imported equipment for preparing calf lymph, presenting this to 'the Chief Tibetan 'medico', Men-tsiba Lama, whom I instructed ... how to vaccinate a calf and to collect and prepare the lymph in due course.'[91] Little or nothing came of these links in the short term, but Geoffrey Samuel has suggested that the founding of the Men-ze khang in Lhasa was a significant step; 'from the spiritual to the pragmatic in the practice of Tibetan medicine. In entering a state system, Tibetan doctors were pre-adapted to the pragmatic encounter with Western biomedicine in India.'[92]

Smallpox vaccination in Tibet

While the Government of India established medical dispensaries there for political reasons, the British did have one serious public health concern in regard to Tibet: smallpox. Throughout recorded history, outbreaks of smallpox had regularly devastated Tibet, where the crowded conditions in monasteries and urban centres favoured the rapid spread of the disease.[93]

It appears that the Tibetans did have a knowledge of variolation as a means of preventing smallpox. Ahmad Shah, an Indian Christian who lived in Ladakh, reported that the 'scab of the small-pox is dried and swallowed',[94] and Sarat Chandra Das (see below) reported that, 'the lymph taken from an infected child and mixed with camphor was in-

haled though the nostril'.[95] But given that both Dalai and Panchen Lamas (who presumably received the highest standard of indigenous medical care) were among those who had suffered or died of the disease, efficacious indigenous treatment must be in doubt.[96]

It appears that once the disease manifested itself, the Tibetans had no real treatment for it except isolation. The Jesuit Desideri, writing in the 18th century, noted:

> Every ten or twelve years an epidemic of smallpox carries off many people. It is so deadly because anyone showing symptoms of the malady is driven out of his house into the country, where under a tent, exposed to the bitter cold and the bad weather he is shunned by all save perhaps some relation who has had smallpox.[97]

Chinese records indicate that; 'In 1794, the Talé [Dalai] lama, under orders from the Emperor, erected special hospitals for small-pox patients, in which they were supplied with food and every necessary, and which were under the care of a special officer'.[98] European accounts, however, imply that hospitalisation was unknown in Tibetan society and this initiative must have been short-lived.

Bogle and Hamilton's visit had meant the Shigatse authorities were at least aware of vaccination by the 1770s, although there is no record of its use in Tibet until the visit of the Moravian missionary Pagell in 1867 (noted in chapter one). During the 19th century, when the British introduced vaccination against smallpox into their Indian empire, the spread of its renown was stimulated by imperial agents such as Sarat Chandra Das, the Bengali headmaster of the Bhutia Boarding school in Darjeeling. A British intelligence agent who twice visited Shigatse and reached Lhasa in 1881, he cultivated the friendship of the Panchen Lama's Prime Minister who arranged for him to make a semi-clandestine visit to Lhasa. There was an outbreak of smallpox in Tibet at the time, which fatally infected the then Panchen Lama, and the Bengali's host was keen to introduce vaccination. Chandra Das arranged for supplies of vaccine to be sent to Shigatse from India, but the batch was spoiled and after the Lhasa authorities discovered Chandra Das's mission the Shigatse Prime Minister was executed for assisting him, ending this particular chapter of cross-border initiatives.[99]

In India, however, the vaccination project was gradually achieving its clinical aims in regard to the prevention of smallpox. These aims were threatened, however, by external sources of the disease and it was recognised that the trade route from central Tibet to Sikkim and eastern India could as easily become a route for the passage of smallpox. In 1900, following an outbreak in Tibet that spread to the Chumbi Valley,

the Government of India closed the Jelap la route from Chumbi to India until, 'arrangements were made for vaccinating all those who crossed the border into Sikkim and every bale of wool was fumigated at Kalimpong as it arrived there in order to prevent the disease reaching India'. This caused 'considerable loss and annoyance to traders,' with the annual cross-border trade declining by a third.[100] Given that trade was the most public rationale for the opening of Tibet, and that promoting the interests of local Indian cross-border traders was part of the strategy for ensuring the security of the frontier, it was important to avoid such disruptions.

Therefore, after the British established a position in Tibet, they were keen to encourage smallpox vaccination there. The Political Officer Sikkim advised that 'a proper and unified system of vaccination should be carried out all along this frontier as well as in Tibet and Bhutan'[101] and with the economic need implicit, the Director-General of the IMS pointed out the humanitarian, medical, and political benefits. He stated that

> vaccination seems to be very desirable from a humanitarian point of view, and will in some degree protect our own territory from the introduction of smallpox. It is also a means of impressing the natives.[102]

A 'bridge-head' for vaccination at an elite level in Tibet already existed in that most of the ruling elites in the British-controlled Himalayan regions had already accepted vaccination. The half-brother of the Maharaja of Sikkim, for example, was a British ally with estates in Tibet where he resided, and such individuals must have assisted in promoting an understanding of the benefits of vaccination to their Tibetan counterparts.

Apparently only a handful of Tibetans were vaccinated during and immediately after the Younghusband mission,[103] but in May 1905, Steen firstly vaccinated the Tibetan servants and followers attached to the Gyantse Trade Agency and then instituted a vaccination campaign for local children. He recruited three 'intelligent Tibetans' and instructed them in the necessary procedure, while approaching the Gyantse 'Jongpon' [*rdzong dpon*: District Administrator] and 'all the leading men' to explain the benefits of vaccination. Steen later reported that they, 'were unanimous that it would be an excellent measure and all promised to assist in bringing children forward'. These 'leading men ... rendered great assistance' and by the end of 1905, 1,320 children in the Gyantse area had been vaccinated.[104]

It is interesting that Steen was at pains to point out:

> No compulsion of any kind, it is needless to say, was resorted to. When the people saw that the application of the vaccine caused little or no discomfort and when they understood that the measure was intended to prevent small pox the children were brought forward quite voluntarily.[105]

Given that obtaining the support of the indigenous elites was a crucial aspect of British political strategy in regard to the imposition of imperial authority, the most significant medical initiative of this period involved the Panchen Lama. As the focus of the political agent Captain O'Connor's attempts to obtain an alliance with the Tibetan authorities, the consent of the Panchen Lama to vaccination was critical. Late in 1905, O'Connor persuaded him to visit India, and Tibetan tradition dictated that several hundred members of the Panchen's court accompany him. Before they departed in November 1905, the entire party of Tibetans, including the Panchen Lama himself, were vaccinated against smallpox. An account of the event by Steen's interpreter, Karma Paul, hints at the important role these intermediaries played in the medical encounter:

> At first He [the Panchen Lama] was afraid of an injection, placed His hands on my forehead and then asked me about my experiences regarding this matter. Having shown Him the marks on my arm (dating from my schooldays), I was injected before His very eyes. Now no longer reluctant He sat down on the very chair I had just risen from.[106]

Steen accompanied the party to India and on its return in February 1906, he escorted the Panchen back to Shigatse and remained there for a fortnight, presumably in case any diseases contacted in India should manifest during that period. That was a very real danger as among the many members of the Tibetan's party who had became ill on the journey to India was the Panchen Lama's uncle, who died of malaria in Darjeeling. He had, however, failed to take the preventatives provided by Steen and the Gyantse diary, in headmasterly tone, claims that; 'The Lama and other Tibetans thoroughly understand that his death was due to his neglect to follow Captain Steen's advice, or to take European medicines'.[107]

In a farewell conversation prior to his departure from Shigatse, Steen conversed with the Panchen 'chiefly about medical topics and rifles'. In regard to the former, Steen reported that the Panchen Lama 'expressed a wish that I might introduce vaccination into Shigatse'.[108] However, we need to treat these British reports with some caution; it was common practice for the imperial officers to persuade indigenous

rulers to agree to, or to adopt a particular policy favoured by the imperial power, but to attribute the credit for the initiative to the local ruler in order to avoid any charge of interference in internal affairs. The initiatives in fact developed from a complex interplay of personal relations, aims, ideas and circumstances.

But by October 1906, when Steen left Tibet, the British vaccination project appeared to be developing well. The vaccination of the Panchen Lama was regarded as a clear signal that the Tibetans viewed the process favourably (and in later years this precedent was regularly cited as evidence of that). But the British medical initiatives in Tibet then suffered a serious setback. In occupying, but then withdrawing from Lhasa, the British had left a power vacuum in Tibet. Whitehall refused to allow the Government of India to strengthen the British position there, and Russia had proved to have no power there at all. So, with the Dalai Lama in exile and a politically weak Regent as the nominal head of the Tibetan state, the Chinese were able to fill the power vacuum in Lhasa. They considered Tibet as part of their empire, and although by 1900 their position there had declined to the point that they lacked any real political power, their authority over Tibet was recognised by the British government and represented by diplomatic representatives (the Ambans), who were stationed in Lhasa. After the Younghusband mission withdrew, the Ambans slowly began to reassert their former power.

As a part of their strategy, the Chinese sought to weaken or eliminate the British positions in Tibet. They posted a skilled diplomat, Mr Gow, to Gyantse while O'Connor was on leave and his replacement, Lieutenant (later Lt-Colonel) F.M. Bailey, although a highly promising officer and a veteran of the Younghusband mission, lacked diplomatic experience. Gow set about creating various difficulties, including filing a complaint that British vaccination campaigns constituted interference in the internal administration of Tibet, which was forbidden under the terms of the Anglo-Chinese Agreement of 1906. Gow also claimed that the British were making vaccination compulsory.[109] British officials in India, temporarily bemused, checked with Bailey that vaccination was not compulsory, but were clearly uncertain as to whether the medical initiatives were technically in breach of their Agreement with China. When Gow asked Bailey 'as a personal favour' to stop all vaccination until further orders were received, Bailey acquiesced, and the campaign was stopped, although no official orders were passed.[110]

In April 1907, however, the imperial authorities in the north Indian town of Almora (who were probably unaware of the related events in central Tibet), received an unexpected request. The Jongpon and the 'Head Lama' of Taklakot (in western Tibet, near Gartok), asked for Indian vaccinators to assist in combating an outbreak of smallpox there [a request with echoes of Pagell's visit in 1867]. The Tibetans pointed

out that the outbreak would affect cross-border trade in the region, and 'expressed their willingness to pay all of the expenses'.[111] The Deputy Commissioner in Almora promptly sent two vaccinators to Taklakot, and then sought retrospective sanction from the Government of India. Government approved the action, noting that the, 'request on the part of the Tibetan authorities is very satisfactory, as it … shows they have a belief in our medical skill'.[112] The vaccination of the Panchen Lama and his followers was cited as prior evidence of this, and the Indian Foreign Secretary observed that the

> Tibetans appear to realise fully the advantages of vaccination and this last incident confirms us in the opinion that Mr Gow's action in stopping vaccination at Gyantse was entirely opposed to Tibetan sentiment in the matter.[113]

Gow, having effectively established Chinese paramountcy, departed in mid-1907 and Bailey soon raised the issue of resuming vaccination in Gyantse with the local Tibetan Trade Agent. Two months later, no objections having been made by any party, the vaccination campaign resumed. Confirmation that the Chinese objections were part of a wider agenda and not actually aimed against vaccination *per se* came the following year when China's Amban in Lhasa issued an order that all Tibetans should be vaccinated.[114]

China's support for vaccination in Tibet is evidence of the essential similarity of British and Chinese aims in that region. Both sought to encourage the modernisation of Tibet under their influence but with China herself following the Western model of modernisation during this period, there was no dispute over the model both parties sought to impose. The dominant Western model of development included a state public health system, and so both China and Britain sought to develop public health structures within Tibet.[115] But the prevailing tendencies of the Tibetan government had always been anti-modernist except for the decade from 1913-23, when there were cautious experiments with aspects of Western modernity. This meant that British and Chinese innovations in various areas, including medicine, met with conservative resistance from powerful elements within Tibetan society. As was characteristic of Tibetan government, the conservative tendency, or political strategy, emerged in a failure to act, rather than in acts of active resistance of the type that are recognised in this context in India.

Resistance is indicated by British sources for the first time in the Gyantse dispensary report for 1910.[116] When the British resumed their vaccination program in 1907, it was carried out by two Tibetans they had trained (probably the men trained by Steen). In the period of 1909 to 1910 this pair performed 389 vaccinations,[117] and the Gyantse medi-

cal officer confidently reported that the next outbreak of smallpox would demonstrate the efficacy of vaccination.[118] So it proved. In the following year there was an outbreak of smallpox which caused numerous deaths in Lhasa and Shigatse, but few in Gyantse. The number of vaccinations carried out that year leapt to 2,131, as might be expected. The medical officer's report recorded that:

> Many vaccinations were performed in the dispensary, when the outbreak was at its height locally. In addition to this, many Tibetans and Chinese officials and gentlemen got me to procure lymph for them on payment to be sent to all parts of the country. The people much appreciate the benefits of vaccination.[119]

But along with this positive news the report also noted:

> On arrival here I found the old vaccinators (2) had been demanding money to let the people escape vaccination. These men were dismissed. Only one suitable candidate presented himself for the post of vaccinator, and I regret to record his death while vaccinating at Shigatse during a serious outbreak there in December.[120]

Earlier indications that the vaccination campaign had not proceeded entirely smoothly may be detected, however. It is interesting that Steen found it necessary to emphasise the voluntary nature of the vaccination campaign a year before Chinese allegations to the contrary, while the fact that the vaccinators were being bribed not to vaccinate people also lends weight to the Chinese allegation that some form of coercion was used in the process. Of relevance in this regard is an obituary of Dr. Kennedy, Gyantse medical officer in 1907-10 (which was apparently written by his Gyantse contemporary, F.M. Bailey). It notes that Kennedy 'vaccinated a large number of the local inhabitants, *at first by guile and persuasion*, but later at their urgent request'.[121]

The British sources do generally paint a bright picture of Tibetans keen to embrace vaccination. Thus in reports around the time of this outbreak we read:

> Tibetans are very appreciative of the value of vaccination; during one month representatives from villages, many of them five days journey from Gyantse, came to hospital to say that smallpox was raging with them, and asking that the vaccinator be sent out.[122]

But a subsequent report clarified the nature of the Tibetans' enthusiasm for vaccination. They were, it stated, 'reluctant to undergo vaccination unless the disease is actually amongst them'.[123]

But the efficacy of vaccination was becoming apparent, with smallpox becoming increasingly rare in Gyantse, where large numbers of people had been vaccinated, and in the Chumbi Valley, where by 1911, the majority of the population had been vaccinated.[124] In Shigatse and Lhasa, however, and other parts of Tibet where vaccination had not been widely introduced, smallpox was still common. To those who had been vaccinated, the efficacy of the vaccine must have been empirically established, and Tibetan and Chinese officials were thus, as we have seen above, already requesting the British to provide them with lymph with which to institute their own vaccination programs.

One final indication that vaccination was becoming accepted by the Tibetans came in 1913, when a group of Nepalese vaccinators found it profitable enough to travel around vaccinating people for a small fee.[125] While there were cultural and traditional links between the Tibetans and the Nepalese, relations between the two countries were historically hostile and we cannot necessarily conclude, therefore, that the Nepalese were in any sense more welcome than British. What was welcome was vaccination.

In 1922, a case of smallpox occurred among Tibetan troops in Gyantse and the garrison was subsequently vaccinated in its entirety, the first recorded case of the Tibetan state's personnel being systematically vaccinated.[126] In 1925-26, when a smallpox epidemic broke out in central Tibet,[127] the British vaccination services were greatly in demand. Not only were 3,525 people vaccinated in Gyantse, a total probably larger than the population of the town itself at that time,[128] but it was noted that none of those previously vaccinated were among those who died there. The Tibetan state again signalled its acceptance of vaccination when they requested the Sub-Assistant Surgeon in Gyantse be sent to Shigatse, where he vaccinated a total of 1,379 people. In addition, the Tibetan government 'and various influential officials' received free vaccine from the Government of India.[129]

These officials were playing a key role in mediating the introduction of biomedicine into Tibet, lending their local authority to its uptake in and around Gyantse. Some were doubtless involved in this process earlier, but with the approval of the Tibetan state their numbers probably increased. While those involved in the 1925-26 distribution are not named, the 1931 Gyantse annual report identifies Tsarong Shapé as one such individual.[130] Tsarong, a powerful and outward-looking lay aristocrat who had served as Commander-in-Chief of the Tibetan army, was regarded by the British as their key ally and while a strong nation-

alist he was in some ways a modernist. His support for vaccination is unsurprising.

The 1941 Gyantse annual report,[131] however, indicates that supporters of biomedicine now included important monastic figures. Those receiving vaccine included unnamed Gyantse officials and landlords, along with the Jongpon of Shigatse, confirming local lay political support. But there was also vaccine for the powerful monk-official Dzasa Lama, and for the Sakya Rinpoche. As head of the Sakya sect of Tibetan Buddhism the latter's influence was considerable, and the British had considered him a supporter of biomedicine since he visited the Gyantse agency in 1926, and, with 'charming manners', requested vaccination from the medical officer.[132] Support at such a high monastic level must have been essential to the Tibetan state's acceptance of vaccination.

There are some indications of lingering resistance, however; Frank Ludlow, headmaster of the English school that existed in Gyantse from 1923-26, noted a woman with smallpox whose family had refused vaccination on the advice of their lamas.[133] But in general the Tibetans had, by the mid-1920s if not earlier, accepted vaccination against smallpox as a medical practice. It was noted that in this sense vaccination was something of an exception; 'Though other forms of European medical treatment are often looked on with suspicion, vaccination is greatly appreciated by Tibetans of all classes'.[134]

It is notable that the Tibetan state's adoption of vaccination came at a time when the confrontation between tradition and modernity was reaching a climax. After a crisis in 1923-24, the Tibetan state turned away from modernity,[135] yet against the prevailing tendencies of the era, this aspect of medical modernity was eagerly embraced. By the 1930s, references to smallpox in the British records are devoid of any indications of resistance, and demonstrate an increasingly wide distribution network of lymph from the British to outlying areas of Tibet such as Poyul and Kham in the east.[136]

During the final decade of the British presence in Tibet, tens of thousands of Tibetans were vaccinated annually at the IMS dispensaries. With virtually the entire population of Gyantse and the Chumbi Valley having been vaccinated by the 1940s,[137] smallpox was effectively eliminated from central Tibet, saving countless lives. The acceptance of vaccination was a process and, as we have seen, there were examples of resistance to it, but we cannot conclude that this was characteristic. The Tibetans' cautious approach cannot necessarily be read as resistance. In the final analysis, there was a characteristic learning phase before the demonstrable efficacy of the system led to ever-increasing indigenous demands for vaccination.

4 Medical myths and Tibetan trends

While they are a unique source for the study of public health in Tibet, the annual reports from the British dispensaries tended to be brief and formulaic. They also reflect the impact of individual medical officers, some of whom were far more active than others in terms of both medical practice and record keeping. These annual reports seem hastily compiled, with numerous errors and inconsistencies clearly apparent. Conditions reported as common in one report may not be mentioned in the next, and there are also wide fluctuations in dispensary attendance figures that are not always explicable in terms of known historical developments and events.

These medical records do, however, enable us to analyse specific aspects of biomedical practice and its reception in Tibet. They indicate, for example, the emphasis that the IMS officers placed on surgery. This partly reflected their participation in the heroic 'cult of the surgeon' discussed in the Introduction, and in their complaints over the conditions in which they had to operate there may be detected a note of pride in their capacity to achieve successful outcomes under such adverse circumstances. Dr. Kennedy, for example, wrote from Lhasa that; 'I have done 41 cataract operations here and a number of other operations as well – not bad for a singlehanded effort.'[1] But this emphasis also reflected the fact that surgery – at least in the non-invasive form – was a practice known to indigenous medicine, but one in which the British were confident their abilities were superior.[2] It was thus a field in which the IMS officers could demonstrate the superiority of Western biomedicine. Thus we read that on the Younghusband mission, Captain Walton, 'by preference ... selected cases requiring surgical treatment'.[3]

The conditions under which they operated there made it difficult for the IMS officers to carry out major invasive surgery or other advanced procedures. This was particularly true of the early period, therefore they restricted surgery to such operations as correcting hare-lip conditions and removing growths. But there was a particular emphasis on cataract surgery, which had the advantage of being a simple operation requiring only local anaesthetic, but producing spectacular results. These operations were the source of considerable personal satisfaction

for the doctors. For Major Guthrie, for example, it was 'the surgery that he enjoyed most of all'. After restoring a patient's sight he, 'delighted in watching their faces when the bandages were removed and they realised they could see once more'.[4] But it was also recognised that the restoration of a person's sight had an immediate impact that was of great 'propaganda' value for biomedicine.[5] Dr. Morgan, for example, recounts how a patient whose sight he restored subsequently treated the hospital as a shrine, prostrating before it and encouraging others to do so.[6]

Although few patients are identified in British records, this was an operation of particular appeal to the literate classes, primarily comprising the monastic and aristocratic elites, and the acceptance of cataract surgery must have been enhanced by its obvious benefits to Tibetan religious practice. Thus we read that:

> The master (Ge-gyen) of a former Ti Rimpoche of Ganden was very grateful indeed when, after a successful cataract extraction, he was able to resume his beloved reading with the aid of glasses.[7]

Yet even cataract surgery was not accepted unquestioningly by the Tibetans; there were complex elements at play. As Dr. Morgan noted in 1937, while cataract surgery was able to restore sight,

> nevertheless it is curious to relate that no patient would give consent to have more than one eye operated upon: their excuses concerning the second eye were various – usually that a particularly holy lama had told them that they could have one eye cured, but if the other was touched then their life would be shortened! But perhaps the real reason was that generally they were so excited at having their blindness relieved, that their enthusiasm to get back to their village or monastery knew no bounds.[8]

A particularly interesting aspect of this issue is that, as Alexander Hamilton's report (quoted earlier) indicates, cataract surgery was known in Tibet, and in Hamilton's time their surgical instruments had been more sophisticated than those of the EIC surgeons. Why, therefore, did Tibetans turn to British surgeons to restore their sight? While it may be that the skills of the Tibetan practitioners declined during the 19th century,[9] or that reputable practitioners of this operation were always rare, Dr. Morgan explained that the local surgical technique ('couching'), while 'better than nothing', only 'dislocated the lens of the eye rather than removing it ...[resulting in] secondary changes that led to permanent blindness.'[10] But there may also have been another local

technique, for an earlier British report mentions that 'Many eyes are destroyed by the native method of treatment (firing)'.[11] What is clear is that Western surgical techniques had improved to the point where cataract operations were a simple and routine procedure that was almost invariably successful.

The interpreter Karma Paul later recorded that the surgical skills of the IMS doctors were appreciated; after an operation to remove a woman's goitre the Tibetans sang,

> The British government is very gracious,
> The hospital is very generous,
> Kindly let us know,
> Where has [her] goitre gone?[12]

British reports tended to emphasise the distance Tibetans had travelled to seek medical treatment for this and other conditions. Thus it is common to read accounts along the lines of 'a man came fifteen day's journey to have his cataract operated on'.[13] Dr. Morgan reported from Lhasa in 1937 that

> amongst the items of particular medical interest are the cases of cataract blindness, who appear from all directions : the majority of the patients are elderly monks ... our first case came from Tsona, a 3 weeks journey from Lhasa on the Assam border and he had been waiting in Lhasa 3 months for our arrival: he was instrumental in sending us another case from the same area. Two other cases came from Khongpo in Northern Tibet – they had received news by the traders that they could be cured in Lhasa and immediately came a month's journey post-haste.[14]

Similarly, Mrs Guthrie recorded:

> I have known patients travel a month's journey on foot over high passes in order to consult James .. [and] ... On another occasion a monk had walked 5 miles with a sucking wound in his chest. It took some weeks for him to recover but he made it.[15]

This emphasis on the distance Tibetans were prepared to travel and wait for biomedical treatment is expressed as evidence of the popularity of biomedicine.[16] But this was not necessarily the case, it may actually reflect the virtual absence of any medical practitioners in large parts of Tibet. It also seems that indifference to the length and hardships of journeys is characteristic of Tibetan culture. Accounts of pilgrimage, for example, pass over the often long and difficult journeys between

sacred sites. The willingness of Tibetans to travel for biomedical treatment may be better read as an indication of a willingness to travel for *any* medical treatment.

Dr. Morgan also noted another issue:

> Tibetans have a greater fear of anaesthesia than they have of radical methods – it is only when they feel they are faced with no other alternative that they will give their consent to operation … one always tried to do the necessary work under local anaesthesia if possible: we found that under these circumstances they were rarely demurred from surgical interference … numerous tooth extractions were carried out, more particularly since the introduction of painless dentistry.[17]

This may suggest that while the British regarded surgery as a powerful weapon in the promotion of biomedicine, its acceptance by the Tibetans was hindered by a mistrust of elements that appear to involve issues of control. As inpatients, or as unconscious patients, control of their body was ceded to the IMS doctor, and just as the Tibetans accepted certain benefits from their relationship with the British in the political sphere, while resisting British control over their affairs, so they were apparently willing to accept certain biomedical practices but were resistant to those in which they ceded control over their body. As we have seen, Dr. Shelton, the American missionary, attempted to solve this problem by putting up glass walls in the operating theatre, apparently with some success, but the IMS doctors employed less radical methods.

It is important to remember that these difficulties decreased with time and are therefore only characteristic of the early period of interaction; a learning phase during which trust grew. During this period there were also areas beyond the clinical and the scientific where the relationship between British and Tibetan medical understandings might be negotiated, and where the biomedical doctor was best equipped with a practical knowledge of life that was not taught at medical school. For example we read a droll account by a Gyantse Trade Agent of their meeting with a Tibetan monk, whose status meant he was not supposed to drink alcohol, although it might be permitted for medical reasons:

> During lunch the monk explains to the doctor that he has a pain in his back, and enquires whether whiskey would be a good cure. The tactful doctor rises to the occasion, and says that whiskey is what he invariably prescribes for this complaint, and in-

deed it was only yesterday that he was obliged to administer some to me for a similar attack.[18]

The myth of venereal disease in Tibet

European accounts of the Tibetan medical environment stress the prevalence of venereal diseases, which were commonly stated to be endemic there. F. Spencer Chapman, for example, the secretary on Gould's 1936-37 Lhasa mission, wrote one of the best-selling accounts of Tibet in the pre-1950 period. There he stated that the mission doctor's patients were 'nearly all cases of venereal disease'.[19] However, not only was that statement untrue, but analysis of medical reports for the period 1904-47 suggests a very different interpretation of this claimed prevalence.

Walton's report on the medical dispensary accompanying the Younghusband mission makes no mention of venereal disease, and Steen's first report from his sojourn in Shigatse states that eye diseases were 'by far the most common disease met with'. In listing nine main conditions encountered, venereal disease is mentioned only in passing. The category of skin diseases includes 'several probably syphilitic affections' and the last category is; 'Uterine cases, several, and a few venereal.'[20] But in his report for the 1905 year, Steen records venereal diseases as forming 15% of his workload and a similar figure may be deduced for the following year.[21]

In 1910, the Gyantse medical officer recorded that 40 of his 444 outpatients and nearly half of his inpatients suffered from syphilis, which he noted was 'very common'. The following year his successor recorded 211 venereal cases – nearly 25% of his workload – and stated that syphilis was 'much the commonest disease in Tibet'. But he went on to note that, 'Chinese troops furnish the great majority of those suffering from syphilis'.[22] In 1911, however, revolution broke out in China. Her troops in Lhasa mutinied and eventually withdrew to India with British assistance after intermittent fighting with the Tibetans. Tibet was then free of all Chinese officials and early in 1913 the Dalai Lama returned from exile in India and issued what the Tibetans regard as a declaration of independence.

In 1912, there were 167 cases of syphilis among the 748 Gyantse outpatients, and 65 – three of whom died – among the 137 inpatients. But the Gyantse dispensary report for that year noted that; 'With the departure of the Chinese troops [from Tibet] in the autumn corresponded a diminution in the number of patients treated for this complaint.'[23] Syphilis was simply noted as ranking with 'injuries and eye diseases' as among the commonest complaints; although no precise figures were

given. It appears, therefore, that the Chinese troops, who had made up almost 40% of Gyantse's outpatients, were the primary cause of high venereal infection rates in the early period there. [24]

The next year for which figures are available, 1923, was nearly a decade later, when it was noted that the 'majority' of the 51 inpatients and 78 of the 502 outpatients were suffering from syphilis, the figure being given in the context of their successful treatment by the new drug Salvarsan.[25] While the 1924 report is missing, in the 1925 report venereal diseases are once again classified as the most common complaint, but subsequent reports note that; 'Most of the cases [are] from Lhasa and outlying villages', or from 'Lhasa and Shigatse'.[26] The figures indicate that throughout the 1920s and 1930s venereal diseases actually comprised approximately 15% of the medical officers' workload, although by 1934, it was noted that patients were coming not only from Lhasa and Shigatse, but from as far off as Kham, in the east of Tibet.[27]

From 1941 onwards, Gyantse medical reports provide far more detailed statistical breakdowns, and it is immediately noticeable that the percentage of venereal diseases, while remaining significant, declines, suggesting conditions previously registered as venereal were now more precisely defined. Thus in 1941, 216 cases of venereal disease are recorded among a total of 2,736 patients, in contrast to 1940, when there were 174 cases of syphilis among a total of 1,072 patients. Syphilis cases now numbered less than half the number of digestive conditions and less even than the number for injuries caused by dog bites. During the final years of the British presence in Gyantse, venereal diseases did increase in number, gonorrhoea significantly so, but remained at around 5% of cases treated.[28]

The far briefer annual reports submitted from the dispensary in Yatung do not mention venereal diseases until it was noted in the 1935-36 report that; 'Venereal disease is here, in common with the rest of Tibet, very rife.'[29] Figures are then given in the 1940s that indicate these conditions made up around 12% of the caseload in 1941-42 and 1942-43, but declined to around 5% the following year and remained at that level until the British departure, and that inexplicably there was no post-war increase such as occurred at Gyantse.[30]

The first medical report from Lhasa after the departure of the Younghusband mission was submitted by Lt-Colonel Robert Kennedy in 1921. Kennedy, who had served as Gyantse medical officer when Chinese troops formed much of the dispensary's clientele, reported that; 'There is no doubt that the most prevalent disease in Tibet is syphilis' (something he attributed to 'the casual worship of Venus').[31] Although Kennedy did not provide figures, the next medical officer to visit Lhasa, Major J.H. Hislop, reported after his 1924 visit with the Political Officer F.M. Bailey that, during his month in Lhasa; 'I treated an average

of twenty new cases a day chiefly syphilis, gonorrhoea and minor septic complaints.' He noted that; 'Syphilis in all stages is very rife in Lhasa. Gonorrhoea is also common ... it is hardly possible to take sufficient Kharvasan.'[32]

After visiting Lhasa in 1930 with the Political Officer Major J.L.R. Weir, Dr. M.R. Sinclair recorded that; 'venereal disease is the chief complaint met with, and it would be no exaggeration to say that quite 60% of the population of Lhasa are suffering from it.'[33] However, when the British established a permanent mission in Lhasa in 1936-37, the medical officer, Dr. Morgan, submitted a report on the approximately 20,000 cases treated in the first six-month period in which just 1,320 cases of syphilis were included, a figure of around 7%.[34]

Although the British maintained a permanent medical presence in Lhasa from this time on, regular medical reports were not submitted until 1942, when a report on the first five months of that year emphasised the continuing prevalence of venereal diseases, which appear to represent around 10% of the daily caseload.[35] That figure subsequently increased. In 1943, cases of syphilis as a percentage of new cases represented 11% of the workload (865 cases), in 1944, the percentage was 12.5% (793 cases), and in 1945 it reached 15.5% (822 cases). The percentage of venereal cases including gonorrhoea among new patients at the Lhasa hospital reached 21%.[36]

An analysis of these figures is complicated by the various inadequacies and inaccuracies in the records. The most obvious problems with the statistical basis of the figures in this regard are the numerous variations in the method of record keeping. Divisions between 'new' and 'old' patients, and even 'in-' and 'out-' patients are not always clear, and gonorrhoea is not recorded with the attention paid to syphilis. The figures are also complicated by the fact that – as the medical officers regularly complained – Tibetan patients were not prepared to undergo the full course of treatment required for the complete eradication of these diseases, and it seems likely that many of the 'new' patients reporting with venereal diseases had, in fact, previously undergone treatment for the same condition.

But it is notable that the earliest reports by the IMS officers in Tibet (those of Walton, and Steen's report from Shigatse), do not suggest venereal disease was a particularly common infection among the Tibetans. While such cases comprised approximately 15% of the Gyantse dispensary caseload during the 1905-12 period, a significant percentage of these were Chinese troops. This is confirmed by the decline in these diseases after the departure of the Chinese forces, and for the next decade the Gyantse reports simply note venereal diseases, along with general injuries, skin, eye and digestive complaints, as among the more common conditions encountered. In the 1920s and 1930s, however,

the percentage of venereal cases is again given, and it is in double figures. But many of those patients were not from Gyantse but from other parts of Tibet. With more accurate record keeping in the 1940s, venereal cases dropped to around 5%, which is consistent with the figures obtained from the dispensary at Yatung.

In the case of the Lhasa dispensary, the early medical reports do emphasise the prevalence of venereal disease, with the first workable figures, those submitted for the 1936-37 period by Dr. Morgan, indicating a ratio of around 15% venereal cases. The next set of figures, for 1942, show a decline to around 10%, and while the percentage figure increases in the following years, the actual number of cases remains largely unchanged. Only an increase in the number of cases of gonorrhoea in Lhasa and Gyantse (although not Yatung) in the immediate post-war period is statistically significant.

Thus, taking the figures as a general guide, we may state that, despite exaggerated claims such as those of Dr. Sinclair, venereal diseases actually formed an average of 5-15% of the medical caseload of the IMS officers in Tibet during the period 1904-47. For a number of reasons, however, these figures do not appear to provide an accurate picture of actual infection rates.[37] The Gyantse reports indicate that the dispensary attracted venereal patients from as far away as Kham, the easternmost province of Tibet, as well as from Shigatse and Lhasa, thus inflating the percentage of venereal patients among those attending. When taken into account with the first medical report from the Younghusband mission indicating Tibetans were resorting to IMS doctors for a wide range of conditions (few of which were venereal), this suggests that after initial experimentation, the Tibetans rapidly concluded that the British method of treating venereal diseases was superior to their own. They were probably influenced in this conclusion by the Chinese, whose troops already had faith in biomedical cures for these conditions and passed on that faith to the Tibetans.

It is notable that in the 1940s, when the Chinese opened a biomedical hospital in Lhasa in competition with the British hospital, Tibetans continued to go to British doctors for this particular condition. The Civil Surgeon reported that

> for some reason the effect of the Chinese hospital was less on cases of syphilis than on other cases, in other words it appears Tibetans lost less faith temporarily in our treatment of syphilis than of other diseases.[38]

The British medical reports thus appear to indicate that venereal disease was not particularly common among Tibetans at the time of the Younghusband mission. Following the establishment of the IMS dis-

pensaries, however, large numbers of Chinese soldiers resorted for this complaint, while those Tibetans suffering from these conditions came to favour British biomedical treatment in the belief that this offered the most efficacious cure. As was the case with smallpox vaccination, therefore, the understanding of biomedical efficacy for a particular complaint was crucial to the Tibetan acceptance of the cure. Those patients suffering from conditions that they considered the indigenous medical systems could treat effectively were less likely to consult the IMS dispensaries.[39] Biomedical efficacy in regard to venereal conditions thus affected the attendance statistics and gave the British an unbalanced picture of Tibetan health conditions. Ironically, the willingness of the IMS officers to treat venereal diseases may actually have assisted their acceptance by the Tibetans, as Dr. Morgan concluded: 'It seemed that as long as we confined our attentions to the lower orders and functioned as the poor man's doctor, pox doctor's apothecary and prostitutes' friend, we would be tolerated.'[40]

It is notable, however, that whereas there was a period (of around two decades) in which there was some cultural resistance to smallpox vaccination, the only sense in which any resistance to biomedical treatment of venereal diseases can be detected is in regard to the fact that it took several decades before Tibetans gradually came to accept the necessity for repeated treatments to ensure the complete eradication of these diseases, rather than simply the disappearance of their immediate symptoms. Although the British attributed this to the Tibetans' ignorance of biomedical procedures, extended periods of treatment were commonplace in the indigenous medical understandings. According to the 18th-century Jesuit missionary Desideri, this was true of venereal disease treatment for which he records that the Tibetans' remedy, 'cures quickly, but not permanently, and must be repeated often'.[41]

The Tibetans tardiness in undergoing repeated treatment need not, however, be read as resistance. It appears that from their experience of other aspects of biomedicine they understood biomedicine as having immediate effect, and the prompt disappearance of immediate symptoms of venereal diseases may have reinforced that concept. Reluctance to undergo continuing treatment may in fact be evidence for faith in a biomedical cure, albeit a faith based on an understanding that biomedicine offered immediate cures.

One other significant issue is the question of cultural understandings of disease. In contrast to the neighbouring civilisations of China and India, sexual relations in Tibet proceeded more on modern Western lines; virginity was not highly prized or essential to marriage among any classes. Women enjoyed more economic and social freedom than those in neighbouring societies and both sexes enjoyed a degree of sexual freedom. One consequence of this may have been that

venereal diseases did not carry the social stigma they bore in imperial British understandings, which were more in line with those of the elite cultures of China and India.

This may be reflected in the British medical reports from Tibet. It is notable that the Yatung reports do not mention venereal disease until the mid-1930s, nor do the Gyantse dispensary reports during the 1913-22 period. In both cases, the absence of a British doctor there may have been a factor. The Yatung dispensary was staffed for most of this period by the Sikkimese Tonyot Tsering, and his contemporary Bo Tsering took charge in Gyantse from December 1915 until September 1922. The absence of any mention of venereal conditions during that period might suggest that, despite their biomedical training, the Sikkimese medical staff did not regard these conditions as serious enough to be worthy of particular mention. Yet in Lhasa in the 1930s, Bo Tsering ran a separate clinic for monks suffering from venereal diseases,[42] so the issue is complex.

Given the Victorian codes of morality prevailing among the officer class of the British imperial system, some condemnation of the sexual mores of the Tibetans could be expected. Thus one British report describes how:

> The causes of this distressing prevalence [of venereal disease] are the same as elsewhere, ignorance and promiscuity. In a country where morals are as loose as almost to be non-existent, prostitutes are unnecessary, it is not a recognised profession and no brothels (unless certain loose-living nunneries can be called so) exist. Very little is thought of venereal disease but there is a certain fear of it – a small number of cases ask for injections following sexual intercourse with an infected partner and a few parents knowing themselves to be infected fear the consequences to their children and bring them for injection. Extra-marital intercourse is condemned [but] it is quite common for a husband to bring for treatment his wife infected during his absence. The prevalence of venereal disease can be said to be another indication of the backwardness of the country and people.[43]

It would be easy, however, to take out of context the type of moral judgements implied here. While framed with expressions of the prevailing British mentality, the report gives an empirical account in a medical context, and the venereal disease issue was not usually stressed in the sort of public forum where opinions of the Tibetans were formed. Knowledge of the prevalence of venereal diseases was kept largely within the imperial system, for, as noted in the Introduction, the Govern-

ment of India's officers were interested in presenting Tibet in a positive light as part of their policy of strengthening the Tibetan state as a security 'buffer' for their northern frontier. After the conflicts of the Younghusband era had given way to an alliance of interests between the British-Indian and Tibetan ruling elites, the imperial presentation of Tibet in press releases and authorised publications was overwhelmingly positive, and any emphasis on the prevalence of a disease generally regarded by Europeans in a negative context would have been counter to the prevailing, and politically important, positive discourse.[44]

The influence of Sir Basil Gould, the Political Officer for Sikkim, Bhutan and Tibet during the period 1935-45 may also have been a factor here. While a broad strategic thinker, Gould also characteristically focused considerable attention on specific, although not always significant, issues.[45] As will be seen in the following chapter on Bhutan, Gould became concerned that the populations of his Himalayan states were declining, and concluded that that decline was primarily due to the long-term effects of venereal diseases. Gould's personal concern with this issue increased its prominence in the records, and may have influenced the medical officers to give the matter more attention than they would otherwise have done. The issue is, for example, only mentioned in the available Yatung reports after Gould's appointment to Sikkim, and it is only in the 1940s that the British began active steps at educating Tibetans in the prevention of these diseases, with the medical officer distributing information pamphlets 'to patients and their friends'.[46]

Accepting biomedicine in Tibet

Imperial confidence in biomedical supremacy fostered the assumption that it would rapidly triumph over indigenous medical practices. Early reports from Tibet are thus buoyant; Younghusband's Lhasa dispensary 'was very popular from the beginning', while 'crowds of sick people flocked to Captain Steen's [Shigatse] dispensary daily'.[47] But by March 1906, when he filed the first report on the operations of the Gyantse dispensary, Steen had already identified selectivity in the Tibetan reception of biomedicine. He described how:

> At first the Tibetans seemed rather afraid of associating themselves in any way with us and only came to the hospital in twos and threes. This was rather due to fear of their own people and to the unsettled state of the district generally than to dread of us … The confidence of the people has now been gained, I think,

> especially with reference to cases requiring operation or active treatment, wounds, ulcers, abscesses, skin and venereal diseases, etc.[48]

Forty years later, the medical officer in Lhasa reported:

> It is now commonly believed that our treatment of wounds and injuries including fractures is effective, injections for syphilis are very popular, extraction of cataracts is the only surgical procedure to which the Tibetan will not only willingly submit but actually seek. There is less belief in our 'internal medicine' and permission to open an abdomen will only be given as a last resort.[49]

Similar comments abound in all of the periods studied. The Tibetan adoption of biomedicine was selective. Tibetans rapidly identified those conditions for which biomedicine seemed most efficacious and sought out biomedical treatment for them. What the sources do not reveal is the extent to which Tibetans were simultaneously undergoing indigenous treatment either in the sense of physical intervention or through religious rituals.

The rapidity with which Tibetans identified certain biomedical cures as more efficacious than their own may well derive from the treatment given to their wounded soldiers during the Younghusband mission. The treatment of wounds was subsequently a mainstay of the IMS doctors' work in Tibet. Along with bites from the large and aggressive beasts that Tibetans kept as guard dogs there were injuries inflicted by humans, for as one report noted, 'wounds are very common, as the Tibetans, especially the Lamas have a bad habit of stabbing each other with knives'.[50]

Similarly, the biomedical doctors' ability to heal broken bones – also displayed on the Younghusband mission – was rapidly acknowledged and commonly resorted to. In the summers, Tibetan children flew kites from the rooftops of their houses and there were inevitably serious falls as the excited children followed their kites over the edge. Along with falls from horses, these accidents provided a steady stream of patients at the British dispensaries. It was noted that their treatment; 'brought a considerable amount of "Kudos" to the hospital as Tibetans expect deformity and restriction of movement after any fracture.'[51] Efficacy appears therefore, to have been a critical factor in the Tibetans' acceptance of biomedical treatment for these conditions.

The Tibetans did not, however, adopt the complete biomedical 'package', nor did biomedicine necessarily become the patients' first resort even for those conditions where biomedical efficacy was acknowledged.

The British sources inevitably explain the Tibetans' reluctance to resort to their dispensaries as due to

> the opposition of the Lamas, who put obstacles in the way of people coming for treatment. The reason is not far to seek, as the dispensary interferes with the fees of the Lamas who are exorcists for all manner of ghosts and demons to whom disease and even injury are universally ascribed.[52]

Thus the IMS doctors found that; 'in many cases, it is only when these [Tibetan doctors] have experimented and failed that the patients come to the dispensary. The result is that some of the cases are very serious.'[53] This tendency to delay resorting to biomedicine could be fatal. In 1929, for example, the Gyantse dispensary reported: 'One death occurred as a result of Septicaemia following a compound fracture of the leg. This was due to a delay of eleven days before arriving at the hospital.'[54] For the British, being the last resort was both a medical and a political concern, as they noted: 'Unfortunately many cases seek treatment very late in the course of disease making rapid recoveries so useful in propaganda, impossible.'[55]

It does appear that it was among the monastics, some of whom had a vested economic and social interest in Tibetan medical practice, that the main opposition to biomedicine arose, but as we have seen there was a gradual lessening of clerical hostility. By 1935, while noting that patients were still liable to delay resort to biomedicine, the Gyantse medical officer could state that it 'would appear that the hostility of the lamas to Western medicine is decreasing in as much as many patients state that they have been advised by their lamas to come for treatment.'[56]

An example of the gradual process of change in indigenous elite understanding is provided by two individuals who served as Tibetan Trade Agents in Gyantse (the local officials equivalent to the British Trade Agents). In 1926, it was reported that the then Tibetan Agent suffered from severe rheumatism and was not expected to live; he would not, however, agree to see the Gyantse medical officer. But ten years later, the Tibetan Agent of that time is recorded as having 'always shown a lively interest in western medicine'.[57]

There are indications that biomedicine gained favour more quickly among the monastic powers in Lhasa than elsewhere, suggesting that while the Tibetan capital was the centre of a conservative culture, the indigenous political model was that that centre enjoyed greater authority to instigate or allow social change and development than did the periphery. Gyantse, it should be remembered, was not a religiously or politically significant place and the British had clearly erred in selecting

it as the site of a Trade Agency. From the first, the Gyantse Trade Agents recognised this, and sought to relocate their diplomatic centre to Lhasa.[58] But it was not until 1920 that the British Government permitted the Government of India to authorise Charles Bell to accept a long-standing invitation from the 13th Dalai Lama to visit Lhasa.

Bell's medical officer, Lt-Colonel Kennedy, found that in the Tibetan capital

> not only did large numbers attend the Dispensary, but I was frequently asked to treat senior officials, from the Prime Minister downwards, and their wives and families, in their houses. ... The leading Lhasa 'medico' and principal of the 'Medical College' on Chagpori, Men-tsiba Lama by name, displayed great interest in the work of the Dispensary and came to see several operations when he asked very pertinent questions and made copious notes.[59]

That some demand for biomedicine already existed in Lhasa is demonstrated by a report that in 1917 a Chinese doctor was practising medicine at Nechung monastery, near Lhasa. He was

> selling what are supposed to be foreign drugs at high prices. He appears to give out freely that he studied medicine in Germany. He is about 22 or 23 years of age and has the appearance of the better class of Chinese.[60]

That others began to respond to that demand is also suggested by a later comment from Dr. Guthrie that, after Bell and Kennedy left Lhasa, the Tibetans

> had again to rely mainly on their own system of medicine and to a much less extent on the increasing number of patent medicines, some reputable, some quack which officials and Nepali traders began to import.[61]

Numerous sources indicate that injections had particular appeal. The Italian traveller Fosco Mariaini, for example, speaks of the Tibetans' 'blind faith' in injections.[62] This again suggests the Tibetans' association of biomedicine with rapid cures; the introduction of penicillin into the IMS doctors' range of pharmacopeia in the 1940s provided just those rapid cures that best served as propaganda for biomedicine. But obviously for some less sophisticated Tibetan patients it was the ritual of injection that was associated with the rapid cure, not the substance injected.

Biomedicine at Lhasa

After Bell's visit in 1920-21, the Sikkim Political Officers began to undertake missions to Lhasa more frequently. Their accompanying medical officers, like Kennedy, seemed to find grounds for optimism over biomedical progress there, with their reports echoing the early reports from the Younghusband mission and Steen's first weeks in Shigatse. Weir's medical officer reported that, 'long queues formed outside the [British temporary Lhasa] hospital before 5A.M', and further noted that; 'I should like to mention the faith which Tibetans have in Western medicines, especially Surgery and vaccination.'[63] Weir rated his medical officer, Captain M.R. Sinclair, highly, reporting that:

> Sinclair has ... become very popular with all classes of Tibetans and has won for himself an excellent reputation in Lhasa. In consequence the benefits of Western medicine are much more appreciated than formerly..... [64]

After first visiting Tibet with Weir in 1930, Sinclair served as Gyantse medical officer in 1931-32 and appears to have been the first doctor there since the days of Lieutenant Steen to undertake medical tours of the surrounding districts.[65] His personal contribution to the spread of biomedicine must therefore be taken into consideration, and there is no doubt that the differing performances of the various individual medical officers must have had an effect on the promotion of biomedicine.

When Basil Gould became Political Officer in 1935, he set out to strengthen the British positions in Tibet in response to China's establishment of a permanent mission in Lhasa following the death of the 13th Dalai Lama in 1933. Among Gould's initiatives was the establishment of a permanent British Lhasa mission, and Gould also laid considerable emphasis on the imperial medical project. In 1936, he visited Lhasa with a large party that became the basis for the subsequent permanent British mission there. Among the party was the IMS officer Captain W.S. Morgan, an experienced doctor who had had his own practice in London after graduating from Bart's Hospital and who had served in Quetta during Gould's time there. He was highly regarded by Gould, who described him as 'a man of strong personality and physique'.[66] Morgan seems to have 'got on' particularly well with the Tibetans. He reported that while dispensary patients were

> mainly drawn from the lower and middle class in Lhasa ... The Regent and his Staff, the various Cabinet Ministers, most of the

> ecclesiastical nobles and nearly all of the lesser officials consulted us at some time or other.[67]

While acknowledging that 'whether curiosity in some cases or a belief in us principally prompted their visits one does not know', he concluded that:

> In Lhasa ... the great majority of the inhabitants have acquired a faith in modern medical methods ... one cannot exaggerate the feelings of gratitude, obviously sincere, that is evinced by patients of all classes. The Te Rinpoche – from a purely spiritual point of view, the senior lama in Tibet and one whose influence is immense paid us a compliment worthy of record when he remarked that 'the poor people tell me that you are as kind to them as you are to the rich and I am very pleased to hear it'.[68]

The hospital which Morgan established in Lhasa was housed in the same building that had been used by previous British doctors visiting Lhasa. Dr. Sinclair had described the old premises as 'an 'Aviary''', wryly adding that 'why the sparrows should choose such dark and insanitary [*sic*] quarters I cannot imagine.'[69] So unsuitable were the conditions that there was a reluctance to undertake operations. The building was unheated, which meant that; 'in the cold weather it required a great deal of enthusiasm to do one's work in an atmosphere almost constantly below freezing point'; the conditions were such that, 'owing to the appalling circumstances for attempting aseptic surgery, one always had the feeling one was only just 'getting away with it''.[70]

But Morgan found a demand for biomedicine, and records that 'During the latter part of our stay, and as the result of requests by certain English-speaking Lhasa notables, we fitted up simple medicine chests, with the necessary full instructions for use.' He added that there was also a more tangible indication of growing local interest in biomedicine; 'a Tibetan lama apprentice dresser ... sent to us at the instigation of prominent Tibetans and with the priestly benediction of the senior lama-medico'. Morgan was to train the apprentice dresser and the Tibetan orderlies, but while 'the Lhasa people were keen that we should do so', Morgan found this was largely 'prevented by time and other circumstances'.[71]

The Tibetan apprentice seems to have stayed on at the hospital but the initiative bore little fruit according to the disappointed tone of a subsequent British report:

> A Tibetan of nursing orderly status was trained in the Mission hospital for 3 years up to 1940. He now works in the Men-tse-

> Kang or Tibetan Government dispensary where he is said to treat (at a price) a very small number of patients daily with simple Western drugs. He is also capable of stitching wounds.[72]

While the British failed to properly train any Tibetans in medical practice, the establishment of a permanent dispensary in Lhasa from 1936 onwards did place the British medical project in Tibet on a firm footing. It inevitably meant, however, that there was less emphasis on the dispensary in Gyantse, and patients who had previously travelled there from Lhasa for treatment now remained in the capital, although patient numbers in Gyantse continued to increase.

The British position was further strengthened in 1940, when at Gould's initiative, a new post, that of 'Civil Surgeon Bhutan and Tibet' was created. The Civil Surgeon had overall charge of the imperial medical positions in Tibet and, while theoretically based in Gyantse, became in practice the medical officer at the Lhasa mission, undertaking only occasional inspection tours to the dispensaries in Gyantse and Yatung. In addition to their Lhasa medical practice, the Civil Surgeons – Captain W.H.D. Staunton, Lt-Colonel J.H. Hislop, Dr. G.S. Terry, and Major J. Guthrie[73] – were able to devote greater attention to wider reflections on the problems of introducing biomedicine into Tibet, as will be seen.

Until the arrival of Staunton in February 1940,[74] however, one or other of Bo and Tonyot Tsering remained in charge of the Lhasa dispensary after Morgan's departure from Lhasa in February 1937. They had the assistance of two Tibetan orderlies and a local Nepali, who had picked up some 'rudimentary' knowledge of dentistry from the British and practised it at the mission hospital. In the years that followed, Bo Tsering in particular played a significant part in the success of the British dispensary in Lhasa. A 1943 report stated:

> The [Lhasa dispensary] patients include family of the Lama, *shapes* [cabinet ministers], Tibetan officials of all ranks, shopkeepers, peasants, and beggars etc. The monks of Sera, Drepung and other monasteries are at last coming for treatment to the hospital. Members of the Chinese, Nepalese and Bhutanese legations frequently come for treatment to the hospital. We have even been consulted by the Chinese Veterinary Officer regarding sheep and stopped an epidemic among merino Australian with M&B and glycerine.
>
> The above is largely due to the character and personality of Rai Sahib Bo Tsering.[75]



Sikkim's first female doctor, Dr. Leki Dadul and her husband, Rai Sahib Bo Tsering's son, Police Commissioner Sonam Dadul ("Yapla")

It is notable that Bo Tsering's achievements were attributed to his desire and ability to constantly update his medical knowledge and practice, and to his ability to 'get on' with Tibetans. The extent to which his cultural origins and Buddhist religion were a factor in promoting biomedicine was apparently taken for granted now that the Tibetans were more routinely resorting to biomedicine. Another important symbol of its growing state support came in 1942, when the Tibetan Government funded the building of a two-room block alongside the British hospital building. This was intended for the use of sick officials, and while it remained largely unused, its symbolic value was highly prized by the British.[76] The Lhasa hospital now consisted of

> two separate adjacent blocks. The first has an operating theatre with a small drug store, a general waiting cum examination room for outpatients with an attached dispensary and a small store, a large ward for 5 patients and a smaller ward for 2. The second block is the so called officials' block, which has 2 rooms for 2 patients each, a small kitchen and store.[77]

Along with the construction of a hospital block came other indications of the Tibetans' official acceptance of biomedicine. Both of the Regents who governed Tibet after the death of the 13^{th} Dalai Lama in 1933 consulted the Lhasa mission doctors, with the anaemic Reting Regent being a regular patient. His treatment included 'daily exercise, includ-

ing football' to build up his strength.[78] The young (and current) 14th Dalai Lama had been found in Amdo, identified in the traditional manner and brought to Lhasa in 1940, and it was obvious that his resorting to biomedicine would be the ultimate seal of approval. This took time, for while Dr. Staunton apparently treated him for measles in 1943[79] – or provided medicine for him at least – there is no mention of either Hislop, Terry or any other biomedical doctors in Lhasa doing so. Dr. Guthrie reported that soon after he arrived in 1945 the young Dalai Lama 'is kept apart from all Western influences – to the length it is said that I would not be called in even though he were dying.'[80] But as the only British officer in Lhasa for much of 1945, Guthrie made a number of ceremonial visits to the Dalai Lama in his political capacity and as he became known to the Tibetans, their attitude began to change.

Dr. Guthrie's patients were not all human. In the Tibetan understanding, a medical practitioner was assumed to be able to apply his skills to a variety of animals.[81] As a keen horseman and fond of dogs, Guthrie was able to double as a vet, although he could do little when he, 'was asked ... at a lunch party for some medicine to bleach the face of a black horse white'![82]

In 1947, however, in a significant indication of biomedicine's acceptance by the Tibetan elites, Guthrie found himself with an unusual but important case. He was called in by the Regent of Tibet to treat the young Dalai Lama's peacock, which had developed a cyst over one eye. Guthrie was received with due ceremony and he operated successfully on the feathered patient. The Dalai Lama watched the operation with interest and they talked for some time, Guthrie being 'very struck by his alertness and decisiveness'. Interviewed in 1994, the Dalai Lama recalled that Guthrie had assured him, in the three forms of Tibetan speech; 'Don't worry, it will not die.'[83] The Dalai Lama himself did subsequently begin to receive biomedical treatment on occasions, providing the ultimate seal of approval for biomedicine within Tibetan society.

The peacock incident was reported to the Government of India with some satisfaction, but the triumphant tone of British medical discourse in this period was not restricted to official reports. Mrs Guthrie wrote to her mother in 1947, noting:

> Tomorrow we are to go to one of the DL's tutors for a meal ... The rimpoches [incarnate lamas] advise many people to consult us when they become ill so apart from the fact that they are often people of interesting character, it is a good thing to get to know them.[84]

Yet despite these real advances, biomedicine was still not necessarily the first resort or universally accepted. A Gyantse medical officer in the 1940s recalled that the Tibetans continued to consult local practitioners initially, and as late as 1942, the Civil Surgeon reported that 'While all Tibetan civilian officials I have met have been helpful, the same cannot be said for the Lamas.'[85] Similarly, in 1945, it was reported from Yatung:

> For one reason or another this hospital is definitely unpopular in the Chumbi Valley where there is undoubtedly a great deal more sickness and disease than is reflected in the statistics of the hospital. The number of inpatients (8) is deplorably low; difficulty is undoubtedly caused here by the lack of a full time sweeper, but this could well be surmounted with a little energy and resources.[86]

In some senses, the problems now facing the British were ones of development rather than of establishment. The fact that Tibetans had, after several decades, accepted vaccination did not mean that new medical initiatives would be adopted without similar delays. Several initiatives were still-born. In 1943, for example, the Civil Surgeon reported that:

> I have been endeavouring to get some system of child welfare started in Lhasa, as well as getting Tibetan girls trained in elementary nursing. All Tibetan officials both lay and ecclesiastical agree with me but the matter stops there.[87]

While the number of outpatients at the dispensaries in Yatung, Gyantse and Lhasa were now each measured in thousands, rather than hundreds, Tibetans were still reported to be 'hospital shy'. While freely attending as outpatients they were unwilling to become inpatients.[88] Officers such as Major Guthrie attempted to overcome this by allowing, 'the families of patients to bring tents and camp around the hospital ... to encourage and comfort a relative or friend'.[89] But the absence of any precedent in the indigenous medical system for incarceration away from the home (aside perhaps from cases involving contagious disease), made the hospital a strangely forbidding place and difficult to absorb into Tibetan culture. As Guthrie admitted in 1946: 'the time is not yet ripe to submit the average Tibetan to the initial bath, the change of clothing and the hundred and one little details that the regime of a modern hospital demands.'[90]

Biomedicine from other nations

The British were not the only regional power concerned with Tibet. There was also communication between the medical worlds of Tibet and Russia, with Tibetan medical practices becoming popular there in the last decades of the Tsarist regime. Most famous in this connection were Piotr ('Peter') Badmaev and his brother Tsultrim, wealthy and well-connected entrepreneurs who were originally from the Russian Buddhist enclave of Buryatia. Piotr Badmaev translated what he considered were the medical sections of the *Gyü-shi* into Russian and the brothers opened a clinic in St Petersburg in the late 19th century. This attracted a number of influential politicians and aristocrats and Piotr Badmaev became actively involved in promoting Russian expansion into the Tibetan regions. His nephew Nikolai Badmaev carried on the practice in the Soviet era, treating high-ranking officials in Leningrad during the 1920s and 1930s. He eventually opened a clinic there, but despite treating the OGPU (forerunner of the KGB) commissar, he was among the many Far Eastern specialists purged around 1938. While at least one ethnically Russian physician, Vasily Shestakov, apparently studied at the Men-ze khang in Lhasa in the 1910s, it was easier for Russian Buddhists such as the Kalmyk, Dambo Ulianov, to travel in Tibet without attracting international attention. Ulianov travelled to Lhasa in 1905, and returned to practice 'Tibetan medicine' in Russia. He claimed to have a unique Tibetan formula for curing syphilis, though given the Tibetan's keenness to resort to biomedical cures for this condition, we may doubt its comparative efficacy.[91]

The Soviets also considered using biomedicine to gain closer links with the Tibetans. The Buryat Dr. Sanjimitab Tsybiktarov (1877-1921), a graduate of the Military Medical Academy in St Petersburg, started a small Western medicine dispensary at the Russian consulate in Urga, the Mongolian capital, in 1909. He practised there until he was arrested and executed by White Russian forces, although the clinic was functioning again in 1923 when visited by Elizabeth Kozlova (wife of the explorer Pyotr Kozlov). There were regular communications between Urga and Lhasa, and the Russian dispensary added an additional link in the chain of biomedical institutions on Tibet's frontiers. In the 1920s and early 1930s, when there were a number of attempts by Soviet agents to penetrate Tibet, plans were made by the Badzar Baradiin Tibet expedition project to promote Western medicine there, including smallpox vaccination. But the expedition was cancelled and the Soviet's anti-religious policies alienated them from further contact with the Tibetans for a number of decades.

The Chinese had begun to encourage biomedicine in Tibet in the last years of the Manchu dynasty and even after the expulsion of Chi-

nese officials from Tibet in 1911-12, they had scored one apparently unnoticed politico-medical victory. On 11 February 1913, just weeks after the Dalai Lama had returned to Lhasa and issued a 'Declaration of Independence', the Chinese government had signed the International Convention on Opium on behalf of Tibet, thus implying in an international forum that Tibet was still part of China. By contrast, the British did not sign on behalf of Sikkim until 1920.[92]

After re-establishing a diplomatic post in Lhasa in the 1930s, the Chinese mission began building its own hospital, which opened in September 1944. Under civil biomedical Doctor Ge Chengzhi it offered free biomedical treatment to all classes of Tibetans just as did the British dispensaries, and it soon began to attract as many patients as the British.[93] Although Britain and China were then allies in the war against Japan, their missions in Lhasa were in more-or-less open conflict for influence over the Tibetans. While maintaining the usual diplomatic courtesies – the two mission heads regularly dined, or played tennis together – the representatives of both countries competed on all fronts for influence, and given the political importance the British attached to their medical project in Tibet, the Chinese hospital was taken extremely seriously by the Government of India.

This was not the first time the British had faced biomedical competition in Lhasa. There was an apparently still-born plan in the early 1930s by the Swiss monks of St Bernard (famous for their dogs), to establish a hospice in Tibet for Himalayan travellers.[94] But more significantly, a five-man German mission arrived in Lhasa in January 1939, and among its staff (who were known to be members of the S.S.), was Bruno Beger. He was an anthropologist, but acted as the mission's medical officer (a task that was to put him off becoming a qualified doctor!). The Germans remained in Lhasa for two months despite the best efforts of the British to get rid off them, and Beger's diary reveals that he attracted a number of patients from the British dispensary, which was then under Bo Tsering's command (with Tonyot Tsering then in Yatung). 'German medicine' had, Beger claimed, a great reputation and he found himself inundated by patients 'from early in the morning until late at night', including one sent by the Chinese representative. 'To my disappointment', he wrote:

> I have learned that the Englishmen here and the two Sikkim doctors are quite annoyed about my activity. Many patients did run away from them. That didn't please me, as I had pointed the patients again and again to these doctors out of consideration for them and to be relieved from this kind of work, especially the difficult cases. Unfortunately the inflow is unchanged ...[95]

Hugh Richardson ['the Englishman here'], was a fervent anti-Nazi Scotsman who was then in charge of the British Lhasa mission. He steadfastly refused to assist the Germans and Beger's records note that he requested medicines from the British dispensary in Yatung for use in a particular case, and was refused.[96]

While Beger's doctoring had little long-term impact it does raise several issues. Beger makes no mention of any opposition to biomedicine and stresses the demands on his services, which presumably differed little from that on offer at the British dispensary. That he was able to attract patients from the British dispensary may indicate he was seen as a better doctor than Bo Tsering, that he dispensed more up-to-date medicines, or that was he right about the claim that German doctors enjoyed particular repute.[97]

While British opposition to Beger reflected European political events, the competition with China was strictly a local affair, and the British were concerned that patients' attendance at the Chinese hospital indicated a political preference for the Chinese. Basil Gould saw the Chinese presence as a test of British medical abilities, proclaiming that: 'Chinese competition in medical work calls for a high standard of work from us.'[98] Structurally the British were in a good position. They had had time to build up a patient base and when the Chinese hospital opened, both Bo Tsering and the Civil Surgeon Dr. Terry were in Lhasa. Gould himself arrived there in November 1944, accompanied by the Gyantse medical officer Dr. Kurian, and the British seemed to be winning the battle when the wives of two officials from the Chinese mission sought treatment from the British rather than the Chinese hospital. But any benefit to their reputation was doubtless lost when one of the women died after a caesarean.[99]

Visits to the British hospital did decline dramatically after the opening of the Chinese hospital from an average of 42.7 patients per day in 1943 to 30.1 per day in 1945. Although one factor in this decline may have been due to new British practices. Dr. Terry, who took up the post of Civil Surgeon in Lhasa in July 1944, introduced much fuller physical examinations than had previously been made, and this may have alienated patients unused to such practices. The only consolation for the British was that, as noted, there was little decline in the number of patients attending with venereal diseases.[100]

After the departure of the Chinese doctor in August 1947 their hospital soon closed, but it is clear that in the 1944-47 period the Chinese did attract a number of patients away from the British.[101] Given that both hospitals offered free biomedical treatment, it is difficult to avoid the conclusion that, for historico-cultural reasons, those Tibetans felt more comfortable dealing with the Chinese doctors than they did with the British. Whatever conflicts there may have been with the Chinese,

they had been present in Lhasa for many centuries and there were numerous shared cultural understandings between the two peoples. The Tibetans were accustomed to dealing with the Chinese, while the British were culturally foreign, and despite the growing links between them, and the increasing Tibetan understanding of European culture, it appears that this preference affected medical choice.

Cultural perspectives and concessions

Different perspectives on the British medical project in Tibet are provided by the reports of other European visitors to Lhasa in the 1930s and '40s. We have noted the American aircrew's more critical view of Bo Tsering, and we may also note that the diaries of Bruno Beger, who painted a highly critical picture of the indigenous medical system, indicate continuing competition with indigenous practitioners. He describes, for example, one female patient suffering from an abscess under the knee, which he treated with an appropriate ointment. The local monastic medical practitioners, however, diagnosed a demon residing in the knee and replaced the ointment with butter and lambskin and then ensured that the woman was kept awake by the noise of drums, bells and tubas intended to drive out the demon. Their treatment was unsuccessful.[102]

But apparently the only non-British specialist study of medical conditions in Tibet was the account of Lt-Colonel Regolo Moise of the Italian Navy Medical Corps, who travelled to Tibet with Professor Guiseppi Tucci in 1948. Tucci's visits were encouraged by the British, who considered the academic study of Tibet beneficial to their interests and those of Tibet, and Moise had access to British medical records. Noting that his own research was cursory, Moise concluded that in Tibet; 'Western medicine ... had only a superficial influence and its results can hardly be felt.'[103] It is, however, notable that he found no evidence of any resistance to biomedicine. He stated that the Tibetans

> never seemed to have anything against our medicine. Even those who plied the same trade and could reasonably be expected to fear competition, showed much tolerance. The sick flocked to us driven by curiosity and faith, a faith so strong as to embarrass us sometimes, as it could not always be satisfied. They saw something magical in our medicine too and failed to see the limitations set to it by pathology, surgery, and the time and means at our disposal.[104]

These reports indicate that there was a genuine uncertainty about the boundaries of biomedical knowledge and practice, and that just as an other-worldly aspect to indigenous medical practices was understood as part of the system, so too was there probably a presumption of an other-worldly element to biomedicine. A fear of the power inherent in Western medicine may be reflected in the patients' unwillingness to be anaesthetised or to remain confined within the hospital environment, as well as in the apparently frequent practice of first consulting an indigenous religious practitioner and remaining guided by their understanding of the British system. The propaganda value of rapid cures was recognised by the imperial (and missionary medical) authorities as a means of attracting patients to biomedicine; but it appears that the Tibetans understanding of a miraculous component to medicine led them to reject, or at least be less trusting of, biomedical cures that lacked that rapid power.

We have seen that Dr. Guthrie altered the usual hospital routines in order to accommodate Tibetan cultural understandings. Given the isolated location of the British dispensaries in Tibet and the frontier mentality of the imperial officers there, it was to be expected that there were certain differences in approach and procedure there when compared to the medical institutions in the urban centres of imperial India. At what point those differences were specifically articulated as a response to Tibetan cultural understandings, rather than environment or circumstance, is uncertain, and may have begun with the practices of compounders or sub-assistant surgeons. But by the 1940s, the IMS officers were consciously altering the practice of biomedicine to incorporate local cultural beliefs and practices.

Dr. Guthrie, for example, while attending a birth at the house of one of Lhasa grandest aristocrats, allowed the mother to be given powdered rhinoceros horn, which the Tibetans regarded as beneficial in childbirth. He was said to be, 'acting in his usual way of allowing anything that increased confidence provided it would not be harmful'.[105] Similarly, in the Tibetan understanding, there are preordained lucky and unlucky days for each individual, and Guthrie would, therefore, whenever possible, arrange for major treatments to be carried out on one of the patient's lucky days. He found this produced sound medical benefits, for this innovation 'allowed for the maximum faith in the outcome to work in your favour'.[106] On another occasion, when called upon to remove a twelve-pound benign tumour which the monks had concluded represented the evil collected by and in the patient, Guthrie arranged for a special religious ceremony to be performed over the excised tumour before its burial.[107]

We might note here that prior to the introduction of biomedicine, childbirth was not a medical issue in Tibet. Practitioners of *sowa rigpa*

did not intervene in childbirth and even the presence of an experienced attendant was apparently rare, although there were remedies such as rhinoceros horn or dried fish from the sacred Lake Manasarovar which were considered to assist the process.[108] The result was that estimates of one woman in 10 dying in childbirth and an infant mortality rate of up to 50% were common,[109] but there are no reliable statistics in this regard.

The presence of British physicians did not affect this situation in the initial stages of the encounter. Even in the 1930s, as Dr. Morgan noted:

> ... military surgical instrument panniers were ... based on the assumption that ... patients would be men and MEN ONLY.... had I had the temerity to mention [obstetrics] I would have been an object of derision.[110]

After attending the birth of a child to Kyipup (who had been educated at Rugby school in England), Morgan was told by the long-serving Sikkimese Bo Tsering that that was the first instance of medical intervention in childbirth in Tibet.[111] Not until the 1940s did Tibetans, particularly of the upper classes, begin to regularly have their children delivered in biomedical hospitals. Recognition of obstetrics and child care as a medical practice was, however, already developing in Tibet. On the instructions of the 13th Dalai Lama, Khenrab Norbu, probably the outstanding practitioner of *sowa rigpa* in the 20th century, had formulated a childrens' medicine in 1916, and also wrote a book on the care of infants in that year.[112]

Post-colonial developments

When the British handed over their positions in Tibet to the newly independent Indian Government on 15 August 1947, the policy of excluding Hindus and Muslims from service in Tibet meant that there were no qualified 'Indian' staff available. The new UK High Commission in Delhi suggested a British medical dispensary might be maintained in Lhasa and Guthrie offered to stay on there.[113] But the British Foreign Office, which had always frowned upon the Government of India's presence in Tibet and its effects on Sino-British relations, ruled out a continuing British presence there.[114] Early in 1948, Dr. Guthrie received 'a sad blow when the Indian Govt said I wasn't wanted any more', although it was not until early 1949 that Guthrie and his wife finally left Tibet.[115] In October 1950, Chinese Communist forces invaded and ended Tibet's *de jure* independence.

The Indian Government maintained the former British positions in Tibet until they were handed to China after the Sino-Indian Agreement of April 1954. The Chinese opened a new biomedical hospital in Lhasa in 1952[116] and until the Indians withdrew the Sino-British medical competition of the 1944-47 period was to some extent repeated. The Sikkimese physician, Dr. Sonam Dorji, who was joined by his wife Namgay Dolma, served in Lhasa with the medical officer Dr. Tenzing in the early 1950s. He and his wife were among the Indian staff who escaped the floods which destroyed the Gyantse Trade Agency on 17 July 1954, killing Dr. Tenzing, who was then en route to Lhasa. Dr. Dorji recalls that, despite Chinese opposition to the Indian presence, there was some co-operation on a personal level and that the Indian hospital gave the Chinese their medical stocks when they departed. Dr. Dorji was called on to treat the Dalai Lama on occasions, and could speak to him in Tibetan, but they were closely watched by the Chinese, who 'accidentally' shelled the hospital compound just before the Indians' departure.[117]

Dr. Dorji recalls that during the early 1950s the Chinese in Lhasa actually preferred what they called 'English medicine', while the Tibetans would attend the Chinese hospital because 'they are our Lords now'. Unlike the British, Dr. Dorji frequently interacted with Tibetan medical practitioners, and he noted a growing generation gap, with younger Tibetans tending to favour biomedicine while the elder people resorted to traditional practitioners.[118]

During the 1950s, Rai Sahib Pemba Tsering, who had headed the British Mission in Lhasa, was also killed in the Gyantse floods. But his son, now Dr. Tsewang Y Pemba FRCS, had been educated at Victoria School and sent by his family to the UK in 1949 to study medicine at University College London. While his mother favoured medicine for its Buddhist ethical qualities, and his father saw a university degree as leading to a better career than government service in an independent India, Dr. Pemba was most excited by the thought of travel! He became the first biomedically qualified Tibetan doctor in April 1955 and went on to qualify as a surgeon at the Royal College of Surgeons in London before practising in Darjeeling (where he was Superintendent of the Planters' Hospital for sixteen years), Bhutan, and New York. He remains the best-known Tibetan biomedical practitioner. While a strong proponent of the superior efficacy of biomedicine, like Dr. Guthrie, he continues to adapt his practice to Himalayan culture. This means that he always takes a patient's pulse because they expect it, whatever their complaint, and operates on days considered auspicious by the patient.[119]

When the Chinese conquered Tibet in 1950, there were no qualified Tibetan biomedical practitioners and no biomedical public health sys-

tem in Tibet. While the Chinese then began to develop biomedical structures there, Tibetan resistance to their presence grew, and in 1959 the Dalai Lama and some 100,000 of his people went into exile in India. The subsequent history of biomedicine in the Tibetan regions of the People's Republic of China (i.e., the Tibetan Autonomous Region and parts of Qinghai, Sichuan, Gansu and Yunnan provinces) seems to contain many parallels with developments in the exile community, with which we will be concerned here.[120]

For the exiles who established a new centre for Tibetans on land given to them by the Indian government at McLeod Ganj, above Dharamsala in Himachal Pradesh, encounters with biomedicine became virtually inescapable. The Tibetan refugee's medical needs were originally met by the biomedical facilities of the Indian military physicians and the civil public health system, with Western aid agencies also coming to their assistance. But the Tibetans set about reconstructing and restructuring their community and in 1961 a Tibetan medical hospital was established in Dharamsala. Named after the Men-ze khang hospital in Lhasa, its staff included medical practitioners who had been at that institute. A medical herb gathering operation, which supplied herbs to the hospital had already been established around the Manali district in northwestern India by that time.[121]

The Men-ze khang hospital began with the limited goal of providing the refugee community with its familiar medical treatment. But apparently to the Tibetans' surprise, they were soon called upon by Indians, the first of whom were high-ranking military officers from the Dharamsala cantonment. Some of these officers had served in Ladakh and were familiar with local medical practice there, which at the elite level derived from *sowa rigpa*, and they consulted the Men-ze khang for conditions that had not been cured by their army biomedical physicians.[122]

In 1962, the Men-ze khang was given a favourable report following an Indian government enquiry and demand for its services continued to grow. In addition to the development of medical facilities in Tibetan refugee settlements, Tibetan medical clinics were subsequently established in most of India's major cities with the support of large Indian companies such as Reliance, who contributed funds towards the clinics.[123] But the exile government also established a biomedical system for Tibetans in the refugee communities, and in 1971, the biomedical Delek Hospital opened in Dharamsala.

The Delek was originally a private hospital established with funding from a Tibetan philanthropist and only came under exile government authority on 1 January 1979.[124] The founder, Tsewang Rinchen Rishing (1914-1982), was from a Bön-po family and had little formal education, but rose to prominence as a community leader in exile. He proposed the establishment of a biomedical institution to the Dalai Lama and

with the Tibetan leader's approval Rishing set out to raise funds for the hospital. It was eventually opened on 4 October 1971 with a staff of just five, including an Indian doctor working part-time,[125] but its repute was such that 50% of the patients were local Indians. Although the Delek had no inpatient facilities until a 25-bed hospital ward was opened in July 1979, it provided free medical treatment to the poor, and the use of Tibetan biomedical staff removed the language problems patients faced in the Indian government hospitals. When T.R. Rishing retired in 1979, Mrs Kesang Y. Takla became the first administrator for the Tibetan exile government,[126] and the Delek remains the primary biomedical facility in the Tibetan exile community today.

In exile, however, the indigenous Tibetan medical world underwent a radical process of development within the wider context of cultural survival in exile. Perceiving that traditional Tibetan culture in Tibet itself could be eradicated as a result of Communist Chinese policies and Han Chinese immigration, and also that the exile culture could be submerged by that of their Indian hosts, the Tibetan leadership identified specific elements of their cultural heritage that they wished to preserve. Tibetan medical traditions were identified as one of those fundamental aspects of Tibetan culture. Exile government support was thus given to indigenous medical traditions, which were primarily defined as those of *sowa rigpa*, and there was increasing systemisation of the previously unbounded knowledge.

At the same time there was world-wide revival of interest in Traditional Medicine practices, symbolised at a political level by the WHO conference at Alma Ata in 1978, when Traditional Medicine and schemes such as China's 'barefoot doctors' received official support. As a part of that movement there was a growing interest in Tibetan medical traditions, not only on the sub-continent, but in much of the outside world. Western studies of Traditional Tibetan medicine – principally centred on the Gyü Shi – began in the 1970s and by the early 1980s,[127] Westerners began to come to the Men-ze-khang in Dharamsala. Proper academic studies of Tibetan medicine followed. The opening of Tibet to foreign visitors in the 1980s led to allowing medical fieldwork in Tibet itself.

The many issues that arise as a result of these processes are worthy of a separate study, which would reveal many parallels with the recent systemisation and professionalisation of other regional medical systems such as Āyurveda and Chinese Medicine and their responses to the encounter with global modernity. The processes of Traditional Medicine, as with those of colonial medicine, are highly politicised and, as Waltraud Ernst has noted:

> Traditional and non-Western systems of healing that have more commonly been seen mainly as victims of Western domination and arrogance are on their part not immune or averse to professional power play, shrewd global marketing and personal networking either.[128]

While biomedicine continues to be regarded – at least from the point of view of the Tibetan exile government – as foreign, and not as embedded in Tibetan culture,[129] patients in the exile community today routinely resort to treatment from both systems. But to a greater degree than in the past, nationalism is a factor in the choice of medical service. In contrast to medical developments in nations such as Japan, Iran, and the Arab nations, Traditional Medicine in both the TAR and the Tibetan exile community, as in India and China, has had what Crozier called 'a powerful appeal to cultural nationalism.'[130] Thus, a study of the recent development of Tibetan medicine ironically seems likely to reach the conclusions made by Paul Unschuld in regard to that process in Chinese Traditional Medicine. Unschuld observes that in China, 'the social ideology supporting the social system of the Imperial age constituted ... the legitimising context of traditional medicine'.[131] That context was lost with modernisation, as was the internal creative impetus, with subsequent changes deriving from external impetus. He concluded that

> the defensive restructuring of Chinese medical concepts in twentieth-century publications aims at presenting traditional Chinese medical knowledge as a coherent and stringent system of thought, matching the coherency and stringency of Western medical thought and terminology ... and through a selection of only one pattern ... the original characteristics of Chinese knowledge are lost in the latter's transfer to a modern environment.[132]

It is difficult to avoid the conclusion that Tibetan medicine has undergone a similar process, with the Tibetan medical world irrevocably altered by the encounter with biomedicine, and that while biomedicine is now a part of that world, the elite traditions of *sowa rigpa* have triumphed over the variety of practices and understandings that existed in Tibet during and prior to the colonial period. Local, regional, and gendered practices have been largely eliminated, while *sowa rigpa* has become synonymous with 'Tibetan medicine'.

5 Bhutan: A Later Development

By the late 1940s, biomedicine was firmly established in Sikkim and was attracting ever-growing numbers of patients to the IMS dispensaries in central Tibet. But in Bhutan, biomedicine still remained largely unknown and it was only in the post-colonial period that any biomedical structures developed there. As will be seen, Bhutan's tardy adoption of the new system was due to two factors. Firstly, the state was closed to Christian missionaries and thus to missionary medicine and, secondly, as Bhutan was of little or no economic or strategic importance to British India, it received only minuscule development assistance.

Bhutan is situated to the south of the Tibetan Autonomous Region of China, bordering the Sikkim, Bengal, and Assam regions of India. Covering an area of ca. 18,000 square miles, it has a current population of ca. 1.2 million people, most of whom are Buddhists. A unified Bhutanese state emerged as a distinct entity after the arrival of *Shabdrung* Ngawang Namgyal (1594-1651) from Tibet in 1616.[1] He was a leading figure of the Drukpa Kargyu school of Tibetan Buddhism and became the first ruler of modern Bhutan, which has maintained an independent identity and national existence since that time.[2]

After visits by the Tibet-bound Bogle and Hamilton in 1774-75, and Turner and Saunders in 1783, Bhutan, like Tibet, closed its frontiers to Europeans in 1792.[3] Relations between Bhutan and the British then deteriorated and war broke out in 1864-65. The Bhutanese proved hardy opponents, able to repel the imperial forces from their mountain strongholds and the British were also hindered by the medical environment in which malaria and other fevers were rife. Of the 5,000 men they dispatched to fight the Bhutanese, 480 died of disease and, 'nearly as many more subsequently from the effects of the campaign, although 1,300 men were sent away on sick leave'.[4] But modern weaponry proved triumphant and the campaign ended with the Treaty of Sinchula, which brought Bhutan under British influence. They agreed to refer frontier disputes to the British and ceded lowland territory to the imperial government in return for an annual subsidy.[5] Having secured that section of their northern frontier and with no possibility of the mountainous Bhutanese terrain offering passage for modern armies to

or from Tibet, the British subsequently left the state largely untouched. In the 1880s, Bhutan's traditionally devolved power system collapsed and a regional leader, Urgyen Wangchuk, emerged as its effective ruler. His subsequent decision to accompany the Younghusband mission to Tibet as a pro-British intermediary gained him imperial support, and in 1907, Urgyen Wangchuk was made Maharaja of Bhutan, founding a dynasty that survives to this day.

In 1905, imperial relations with Bhutan were made part of the responsibilities of the Political Officer Sikkim, who subsequently made occasional visits there. But the kingdom remained otherwise closed to Europeans, particularly missionaries. In 1910, Bhutan came under closer imperial charge when its foreign relations were formally placed under British control in return for an increased subsidy. It remained an independent state, however, and after the British departed in 1947, India inherited the British role, guaranteeing Bhutanese independence in return for influence over its foreign policy.

The imperial relationship with Bhutan was thus rather different from Sikkim and Tibet. Sikkim was strategically important as the gateway to Tibet and beyond, and with their regional Political Officer resident in Gangtok the British inevitably became involved in the internal affairs of Sikkim, including the development of public health measures. Tibet was a foreign power and biomedical initiatives were part of the political strategy of developing friendly relations with them. But being of no strategic value, and as a stable and secure 'buffer state' whose foreign affairs were under British control, Bhutan was largely left to its own devices. No imperial officials or military forces were ever stationed there, and as a result, Bhutan received very little support in matters such as the modernisation of its medical world, with the establishment of biomedicine largely a post-colonial process. In 1928, British attitudes to Bhutan were unkindly, but fairly accurately summed up in the Sikkim *Gazetteer*:

> No one wishes to explore that tangle of jungle-clad and fever-stricken hills, infested with leeches and the *pipsa* fly, and offering no advantages to the most enterprising pioneer. Adventure looks beyond Bhutan; science passes it by as a region not sufficiently characteristic to merit special exploration. Our policy towards the Bhutanese, therefore, is determined solely by considerations of geographical position and diplomatic expediency.[6]

European language accounts of indigenous medical practice in premodern Bhutan are almost non-existent. As in Tibet and Sikkim, the British doctors wrote little or nothing about it and the few references by European travellers are brief and superficial. Thus we are awaiting

studies of indigenous sources to shed more light on the pre-modern Bhutanese medical world. It appears, however, that the situation there prior to the introduction of biomedicine was similar to that of Sikkim and Tibet. There was no public health system and while the elite medical tradition of *sowa rigpa* was known and practised, the majority of the population relied on local and village level healers. Their treatments were primarily based on the wide variety of medicinal herbs traditionally found there, with Bhutan referred to in early Tibetan sources as *Lhojong Menjong* – the 'Southern Valleys of Medicinal Herbs'.

The transmission and promulgation of the elite traditions of the *Gyü shi* in Bhutan is attributed to Tenzing Drugyal, the personal physician of the Bhutanese founder, Ngawang Namgyal, and the tradition is thus accepted as deriving from Tibet. But, although individual Bhutanese medical practitioners did travel to Tibet to study medicine, the Bhutanese medical tradition developed independently from that of Tibet. There are variations of practice, belief, and culture and their elite system is not thought of as 'Tibetan medicine' by the Bhutanese, but as *sowa rigpa*. One notable structural difference between the Tibetan and Bhutanese medical systems was that medicine was not normally a monastic practice in Bhutan. Professional family lineages of doctors seem to have constituted the bulk of the elite practitioners, and while monks might on occasion make offerings to the Medicine Buddha, they did not normally practice medicine.

Visits by IMS officers

In 1905 the Sikkim Political Officer John Claude White visited Bhutan to present a knighthood to Urgyen Wangchuk in recognition of his contribution to the Younghusband mission, which he accompanied to Lhasa. Probably for financial reasons, White was accompanied not by a European medical officer, but by a hospital assistant. The only surviving record of his activities seems to be in White's memoirs, where he notes having treated a murderer who had been punished by amputation. White, however, was himself able to assist the Maharaja, whose sight was failing somewhat, by gifting him his own glasses, which were fortuitously suitable.[7]

White visited eastern Bhutan the following year (1906), accompanied on that occasion by a vaccinator. He records that at one location:

> I started my vaccinator at work early, and before evening he had vaccinated over two hundred people, who all seemed very pleased, and flocked in for the operation. I had sent the [Maharaja] a consignment of lymph from Gangtok, as he wished to in-

> troduce vaccination throughout Bhutan and his operator met us [here] to be instructed what to do.[8]

A total of over 800 people were vaccinated on this 1906 visit.[9] But it was apparent that there was a far greater demand for medical services than could be provided by an unskilled assistant and the Sikkim state engineer (who took on a medical role during the mission). White notes that at Serpang:

> in this camp also people crowded to be vaccinated, and to be treated for various diseases. I did what I could, and Mr Dover [the engineer] was indefatigable in dispensing medicines, but it would have made a very great difference if I had had a doctor with me.[10]

On his next mission to Bhutan in 1907, White was finally assigned a medical officer, Captain Henry Hyslop[11] and in 1909-10, Charles Bell visited Bhutan accompanied by Dr. Kennedy, whose personal diary records that at Chukha in January 1910:

> As soon as the people realised I was a doctor a great many people came along for medicine. In all 60 came before tiffin; 19 of these were venereal (apparently this county is even worse in this respect than Tibet) and most of the other cases were trivial. ... One gained the impression that they had great faith in our English medicines.[12]

Later he noted that:

> Smallpox sometimes appears in very severe epidemic forms (last epidemic occurred nine years ago) when it kills people in scores. H.H. [His Highness, Urgyen Wangchuk] ascribes the large areas of deserted cultivations, partially at any rate to these two causes [the other being malaria] He himself has been vaccinated and is a firm believer in it; he is anxious to introduce it into his country. Bell is wiring for some vaccine, and I have promised to teach some men how to vaccinate, if it arrives in time.[13]

The vaccine arrived soon after and Kennedy instructed 'one of the Maharaja's men' in vaccination.[14] But because Bhutan was of little importance to the British, imperial medical initiatives there were limited to these kinds of small-scale measures. Events in Tibet, with the collapse of the Chinese position and the subsequent Simla convention, meant that Bhutanese affairs increasingly took a backseat in the Political Offi-

cer's thinking, while World War One and its demands for medical officers on the European front produced a great shortage of manpower in the Government of India's British ranks. Thus, when a cholera outbreak occurred in Bhutan in 1919, the same year Bell again visited Bhutan, a female medical practitioner, Dr. Ethel Cousins, accompanied by a Nurse Brodie, were sent to deal with it.[15]

The next visit to Bhutan by an IMS officer was made in 1922, when Dr. Dyer accompanied the Sikkim Political Officer F.M. Bailey on his visit to Bhutan to invest Urgyen Wangchuk with another title. They subsequently crossed into Tibet and Dyer's report does not distinguish between cases treated in Bhutan and those treated in Tibet. But he does record that chronic ulcers, which formed around 30% of the 433 cases he dealt with, were especially common in Bhutan, and that while they were, 'said to be the result of the bites of certain insects, undoubtedly a fair proportion of them were of syphilitic origin'.[16]

Dyer states that 'the lack of facility [*sic*] and the short halts at the camps', made it difficult to carry out any operations, 'although a number of surgical cases necessitating operation came to seek relief and had, unfortunately, to be denied'.[17] In the absence of any suitable operating theatre in Bhutan, this problem remained throughout the British period. Only the most basic surgery was possible and one of the main attractions of turning to the British dispensaries in Sikkim and Tibet was thus not a significant factor in attracting Bhutanese to biomedicine.

Bailey visited Bhutan again in 1924 but, presumably for financial reasons, without an accompanying IMS officer. In 1927, however, following the death of Sir Urgyen Wangchuk the previous year, Bailey led another mission to Bhutan to attend the investiture of the new king, Jigme Wangchuk. He was accompanied by Major R.L. Vance IMS, whose report does not appear to have survived.

The next British mission to Bhutan was undertaken by Bailey's successor Lt-Colonel J.L.R. Weir, who travelled there in January 1931 to invest Jigme Wangchuk with a knighthood. The medical arrangements for this visit indicate Weir's awareness of their political value. He asked for 1,000 rupees worth of medicines to distribute, and not only requested the services of M.R. Sinclair IMS, his companion on two previous visits to Lhasa, but also those of a sub-assistant surgeon to assist Sinclair. Government financial stringencies were always a factor that the Political Officers had to take into account in their applications for funding on such missions, but Weir was well-versed in such matters. He pointed out that:

> The political advantage of these medical officers being with me is too obvious for me to lay further stress on it. My proposals

> have been framed with a view to gaining a maximum of political advantage with a minimum expense and I would request that they may be granted.[18]

Sinclair subsequently submitted a detailed account of the 'Medical Aspects of a Tour in Bhutan' which painted a bleak picture of health conditions in the kingdom.[19] It began by stating that:

> Bhutan ... is a country whose inhabitants are poor and the majority of whom are ignorant. Owing to centuries of interbreeding and the prevalence of such diseases as venereal, they are of poor physique and only the fittest can survive. Before many years, however, the survivors, having no knowledge of personal hygiene, suffer from such complaints as pyorrhoea, gastritis and gastric ulcer, gonorrhoea and unsightly goitres.
> The Bhutanese never cleans his teeth or washes his mouth and his food is, as often as not, rotten meat. The result is that he is slowly and chronically poisoned by a combination of enteritis and toxic absorption from oral sepsis. The percentage of the population suffering from Gonorrhoea and Pyorrhoea cannot be less than 80 per cent. Furthermore, owing to their complete lack of sanitation and to the consumption of badly cooked infected meat, especially pork, Ascaridiasis and Taeniasis are almost universal.

Such was the demand for Sinclair's services in Bhutan that the medicines carried proved totally insufficient, and additional supplies were obtained from the Trade Agency at Yatung. 1,343 patients were treated and 370 vaccinated, but it was noted that this was probably an understatement as the 'seething mob' of patients prevented efficient clerical recording. No complete breakdown of conditions treated was given in the report, but the demand for vaccination against smallpox did not prove as great as expected, which was attributed to the fact that those previously inoculated considered themselves fully protected. The report[20] stated:

> The complaints met with were chiefly Gonorrhoea, Goitres, Gastric troubles, Syphilis and joint pains. The goitres are of the Colloid Cystic type, many becoming large and pendulous. Toxic symptoms are rare and I only saw one case of Graves disease. Joint pains are due either to bad Pyorrhoea, to gonorrhoea or to both, and as no cure can be expected in one evening's treatment, Epsom Salts becomes a ready and effective form of treatment for which kudos may be gained. Ringworm and other skin dis-

> eases, Chronic Bronchitis, various eye troubles and Intestinal Parasitis, e.g., Round and Tapeworms, make up the remainder of one's cases.
>
> Epilepsy, Congenital Heart disease, Cretinism and various congenital deformities such as Harelip and cleft palate are not uncommon ... cases of Nodular and mixed Leprosy were seen, but as these were far advanced with large ulcers all over the body, little could be done for them during a night's halt ... [except at] Bumthang [where] the same type of cases were seen, but, as we halted there ten days, much was done in the way of healing ulcers and curing the commoner maladies. One case of Pulmonary Tuberculosis was seen.
>
> During the trip, two operations were performed under chloroform anaesthesia and several under local anaesthesia. Among the latter may be mentioned a Harelip, Papillomatta, Sebaceous cysts and ganglions. Owing to the Bhutanese custom of squatting cross-legged, large adventitious Bursae form over the external malleoli. Suppuration frequently occurs and large callous ulcers remain.

Given that these reports were primarily intended for future medical officers visiting the kingdom, the report concluded with further notes and suggestions for the guidance of such readers. It noted that on their return journey patients were waiting in each village and along the roadside. Many of them were suffering from malaria contracted during the winter months when Bhutanese journeyed south to trade, and Sinclair's report warned that; 'They all begged for quinine and unless a considerable quantity be taken, one's stock runs out in a few days.' It concluded by warning future medical officers to be sure to take a plentiful supply of medicines, including supplies in case of cholera outbreaks, adding that supplies of empty bottles were unnecessary as the local people were accustomed to carrying their medicines in bamboo tubes. Sinclair's report thus helped to build up the medical picture of Bhutan that the British were developing. Later medical officers visiting Bhutan would consult reports such as those of Dyer and Sinclair before preparing medical equipment and supplies for the journey.

Weir's successor as Political Officer in Gangtok, Frederick Williamson, visited Bhutan in the summer of 1933 (and went again briefly to Ha in 1934[21]) and among his entourage was Captain David Tennant IMS, who began a two-year term as medical officer in Gyantse later that year. As in the case of Weir's mission, a sub-assistant surgeon accompanied Tennant, but the medical report on this mission was brief and superficial. Other than noting the most prevalent conditions encountered – venereal diseases, alimentary complaints, goitre, rheumatic

disorders and dental conditions –Tennant gave no breakdown of conditions treated. He recorded that a total of 764 patients were treated during the two month journey, but this figure includes an estimated 200 cases drawn from the mission's own baggage coolies. That fewer Bhutanese resorted to Tennant's treatment than had availed themselves of Sinclair's services is inconsistent with biomedical progress in this region throughout the British period and difficult to explain as anything other than a reflection on Tennant's performance. Tennant, however, partly attributed the comparatively light workload[22] to the warm summer weather. It was, he claimed, the season in which the Bhutanese were 'more concerned about their crops than their ailments'![23]

After Williamson's untimely death in Lhasa in 1935, his successor Basil Gould led missions to Bhutan in 1935 and 1938. He was accompanied on both occasions by Captain W.S. Morgan IMS, the Gyantse medical officer who also accompanied Gould's 1936-37 mission to Lhasa. While Morgan's medical reports from Bhutan do not appear to have survived, Gould's report on the 1938 mission included lengthy comments on one medical-related matter.[24] Gould, in the wider context of the growing Nepalese population, was concerned that the Bhutanese population was declining, and that the people were, 'tending more and more to become sterile, or to produce children who die in early infancy'. There was, he noted:

> A time when it was ... held that ... certain remote races, when confronted with modern civilisation, were apt to die off for no apparent reason except a failure of vital energy. But in most cases investigation has disclosed the fact that such dying off is due to the introduction of some definite new factor such as gin, unsuitable clothing or food, or specific disease. In the present case, while in the entire absence of census or other statistics it is difficult to adduce definite proof, there appears to be little doubt that in fact a serious decline has actually set in, and that, while enteric fever and other diseases, and possibly certain social and economic causes, play their part, the decline is in the main attributable to venereal disease, especially Syphilis.[25]

Noting that venereal diseases were 'extremely prevalent in adjacent areas of Tibet and that ... intercourse between Bhutan and Tibet ... is much more frequent than was formerly the case'[*sic*!], Gould suggested that, unlike the Tibetans, the Bhutanese had little resistance to the effects of these diseases. He further noted that the expense and lengthy nature of treatment for venereal diseases made their elimination difficult, 'coupled with the fact that even a few injections are apt to produce

such alleviation as to render an average ignorant person unwilling to subject himself to further treatment'.[26]

Gould considered, however, that there were grounds for optimism for the future, given

> a determination on the part of the Maharaja and of his right-hand man, Raja Dorji, and also of their wives ... to face the facts, and a social system affecting all of the Bhutanese under which a personal lead given by such persons would be apt to be particularly effective. And I would emphasise the fact in the present instance it is not the case that a British officer is urging a Durbar, or a local authority, to direct attention to health, but that it is those in authority in Bhutan who have, constantly and with great earnestness, directed my attention to the matter, and have pressed me to bring it to the notice of the Government of India.

Yet Gould admitted he could propose no immediate solution for the problem, given that the Government of India had refused Williamson's previous request for an increased subsidy for Bhutan to deal with syphilis. He could only state that:

> Possibly the Government of India may be disposed to consider whether, in place of money, they could see their way to contribute drugs, together with aid in the matter of medical staff. Possibly there may exist some organisation, or some private individual, to whom the study and cure of syphilis in a circumscribed and hitherto completely undoctored area [would] be a matter of such interest as to justify the expenditure involved. If on the other hand it should be considered that the seriousness of the case as represented me by the Bhutan Durbar and by Captain Morgan may have been exaggerated and requires further study, I am assured that the Durbar, which is by no means disposed ordinarily to welcome visitors, would afford to an investigator every facility which he might require.[27]

This was not a new issue; Dr. Graham, the Kalimpong missionary, had written to the Maharaja in 1922 advising him that a population increase was the first priority for Bhutanese development.[28] However, the first census was not undertaken in Bhutan until 1969. So, the understanding of a declining birth rate and population there was not based on any reliable evidence or systematic research.

The first Civil Surgeon for Bhutan and Tibet, Captain W.H.D. Staunton IMS, visited Bhutan in 1941 in a purely medical capacity, rather than as an accompanying medical officer of a visiting Political Officer.

Gould paid another official visit to Bhutan in February 1943, accompanied on this occasion not by the Civil Surgeon for Bhutan and Tibet, but by the Civil Surgeon in Sikkim, Captain St. John Hendricks (who had previously accompanied Williamson on his visit to Ha in 1934).[29]

Hendrick's report on the 1943 mission was purely statistical, but Gould's report states that one-half of the King's 80 attendants 'presented themselves for treatment for gonorrhoea'. While the percentage was lower in the general population, they suffered heavily from goitre, malaria, and worms, all of which, Gould thought contributed to decreasing fecundity. Gould was also able to report, however, that the Maharaja had taken Captain Hendricks' advice, and wanted to have the entire population around his palace treated for venereal disease, as well as to obtain a large supply of various modern drugs.[30]

However, as was the case in Tibet, the British understanding of venereal diseases as endemic in this region was derived from a misinterpretation of the statistics of resort; the belief that the venereal disease rates among those who consulted the IMS physicians were representative of the overall population. The surviving reports from Bhutan by the medical officers Dyer, Tennant and Hendricks are not sufficiently detailed to enable us to reach firm conclusions about medical issues there, and the position is complicated by Dyer's failure to separate cases from Bhutan and Tibet. But his 1922 report indicates that of 433 persons treated by him, 158 suffered from ulcers, 72 from dyspepsia, 49 from constipation, 35 from rheumatism, and 22 from conjunctivitis, and ear problems. Just 20 patients – less than 5% – had venereal diseases. In 1933, however, Tennant, while not providing a proper breakdown of the 754 patients he treated, reported that venereal diseases were 'predominant', along with intestinal parasites, goitre, rheumatic disorders, and dental conditions (which were 'very prevalent'). A decade later, Hendricks reported that the 248 cases he treated consisted of the following:

Table 5.1 *Medical Conditions: Bhutan 1943*

Reported condition	*Patient numbers*
Gonorrhoea	71
Malaria	47
Worms and Constipation	55
Goitre	33
Syphilis	6
Minor Injuries	24
Coughs and colds and minor ailments	12

The figures suggest that the Bhutanese reception of biomedicine had much in common with the process as it occurred in Tibet, with the Bhutanese rapidly concluding that biomedical treatment for venereal diseases was more efficacious than the indigenous treatment. Thus, from consisting of less than 5% of the cases in 1922, it rose to approximately 30% in 1943 (although, as noted, social disruptions due to World War Two may have increased these disease rates in the entire region). The only comparable increase was in the goitre rates, which rose from under one per cent of Dyer's patients to around 13% of Hendrick's two decades later. Goitre, however, was endemic to the point where it was seen by the Bhutanese not as a disease but as part of their human condition. The increase in consultation rates in this instance seems to reflect a growing understanding that it was a treatable medical condition, although, in as late as 1964, a visiting British physician noted that; 'Nodular goitre is scarcely regarded as a disease.'[31]

Once the belief that venereal disease was particularly prevalent in Bhutan had taken root, however, it persisted. A study undertaken in 1968 noted that 'there is reputed to be a lot of venereal disease in Bhutan but this has so far not been confirmed by laboratory tests'[32] and a subsequent survey found 'a seropositive syphilis rate of 8.8 per cent, a figure similar to findings elsewhere in the Himalayas.'[33] It does appear, therefore, that the accounts of high venereal diseases rates in this region are a myth arising from strategies of resort.

Basil Gould paid a further visit to Pharo in 1943 with the medical officer Lt-Colonel E. Elliot IMS,[34] while the last Political Officer in Sikkim, A.J. Hopkinson, visited Bhutan in 1947 accompanied by a Lt-Colonel L.K. Ledger IMS.[35] While the IMS officer's reports do not appear to have survived, in his 1943 report, Gould claimed a growing interest in biomedicine was developing among the Bhutanese. There was, he stated,

> no doubt that the creation in 1940 of the post of Civil Surgeon, Tibet and Bhutan, and the Civil Surgeons (first Captain Staunton and then Colonel Hislop) have done much to awaken interest in medicine in Bhutan. There has been no opposition on the part of the monks or of any other class and, the more frequent the visits, the more the people seem to respond to them.[36]

Gould had little contact with the bulk of the population in Bhutan and following usual administrative practices, was certainly intent on presenting the activities that he had personally promoted in the best possible light. But while the impact of biomedicine in Bhutan in the colonial period was extremely limited, the admittedly narrow range of sources gives little hint of any resistance to the British doctors practis-

ing there. If we accept that Tennant's report, which was rather less enthusiastic about the Bhutanese reaction to biomedicine, was largely a reflection of his own performance, then we may conclude that as in Sikkim, the local population do not appear to have resisted the addition of biomedicine to their range of treatment options. In such a society, royal support for the new system must have been a powerful factor in that acceptance, but there were also cultural factors, as will be seen.

Maharajas and missionaries

While biomedical practice in Bhutan was introduced by IMS physicians, Christian missionaries contributed to the awareness of biomedicine there through their dispensaries in Kalimpong and around the Bhutanese frontier. But their greatest contribution, particularly in regard to the indigenisation of biomedicine in Bhutan, came in regard to that biomedical stepping-stone, Western education. Bhutan, like Tibet, had been visited by 18th-century Jesuit missionaries before closing its borders to outsiders. But following the establishment of a Christian base in Kalimpong (which had been part of Bhutan when it was annexed by the British under the Treaty of Sinchula in 1865), Bhutan became a prime target for the missionaries planning the expansion of Christianity into the Himalayas.

In 1891 the indigenous Christian 'Kalimpong Foreign Mission to Bhutan' was founded, which to avoid the restrictions on Europeans travelling there, sought to use local Christians to spread the Gospel across the frontier. With deaths among the Kalimpong missionaries being high, this endeavour was particularly costly. The first volunteer died of cholera on the morning he was supposed to leave Kalimpong and, although two other converts founded a mission at Rungamutti on the southern frontier of Bhutan, they also died of cholera in 1896.[37] As the missionaries gradually developed a foothold on the frontiers of Bhutan, more deaths followed. Sigrid Gahmberg, a Finn from the Scandinavian Alliance Mission, who in the late 1890s became the first European missionary to enter Bhutan since the Jesuits, died of malaria in 1900, while Choten Bhutia, the leading local evangelist, died of hydrophobia in Bhutan in 1901.[38]

Despite enjoying some success among the largely Nepali population on the frontiers, neither the European nor the 'Foreign' missionaries had any real impact on Bhutan during this period. In Kalimpong and Sikkim, the missionaries offered education and medical treatment; without those tools the Foreign Mission struggled and in retrospect it can also be seen that missionary initiatives which attempted to subvert the existing social hierarchies in the Himalayas made little progress.

Any lasting successes achieved occurred through gaining the consent of the local elites. As we have seen in chapter one, a strong proponent of that approach was Dr. Graham in Kalimpong, who slowly developed ties with the most powerful Bhutanese individual with whom he had contact. This was Raja Urgyen Dorje, who served as the Bhutanese representative in Kalimpong until his death in 1916. A relative of the Maharaja Urgyen Wangchuk, and holder of the important fiefdom of Ha in western Bhutan, Urgyen Dorje became the main intermediary between the Bhutanese and imperial governments. Graham similarly acted as a diplomatic agent. He was able to cultivate ties with Bhutan through Raja Dorje and later the Raja's son Sonam Tobgye Dorje, who had attended Dr. Graham's school as a day pupil and took over as the Bhutanese representative upon his father's death.[39]

While Graham was a supporter of medical missions, he personally devoted greater attention to developing schools, an initiative Urgyen Dorje was similarly keen to develop. The Maharaja Urgyen Wangchuk was himself receptive to at least certain aspects of modernity,[40] and his support for education provided the missionaries' initial entrée into Bhutan. In 1914, lacking the funds necessary for the internal development of such structures, the Maharaja turned to the missionaries, requesting that they open a school in Ha for the sons of local aristocrats. Two indigenous Christian teachers were sent from Kalimpong, and by November of that year it was reported that there were 32 pupils at the Ha school, which internal missionary reports proudly stated had 'Christian instruction as the basis of its teaching'.[41] In the hope of strengthening Bhutan's links with India and boosting Christian influence among the pupils,[42] the missionaries arranged that during the winter season, the boys moved to Kalimpong to continue their educations. In 1921, the first four of these Ha-Kalimpong students reached Indian university entrance standards and by 1924 eleven of the first 45 students had graduated. It was from this group that the first Bhutanese biomedical practitioners emerged, with two youths being sent to India by the Bhutanese government for medical training, and two others sent for veterinary training.[43]

The identity of the first Bhutanese biomedical trainees is difficult to ascertain. Records pertaining to these early medical endeavours are extremely limited; and within Bhutan there are apparently no biomedical records that survive from this period. There is a reference in British sources to one 'Phanchung', who qualified as a sub-assistant surgeon at Campbell Medical College in December 1931 and returned to Bhutan the following year. He had spent at least four years completing the three year course and thus must have begun his training no later than 1927-28;[44] suggesting either that there were two earlier trainees, or that the initial commencement of training was delayed. Phanchung

may be the practitioner referred to by Dr. Tennant in his report on his 1933 mission as the newly qualified (Bhutanese) doctor who was practising at Bumthang and who was treating as many patients per day as Tennant was. Tennant reported, however, that he had difficulties in his relations with the 'lamas' and, having unsuccessfully treated the younger brother of the Bhutanese ruler for typhoid, that patient's death did little for his reputation or that of 'Western Medicine'.[45]

Oral sources suggest that Dr. Tobgye of Ha was probably the first fully qualified Bhutanese biomedical doctor. Many of the early medical practitioners were from Ha because of the Ha-Kalimpong school program, and Dr. (later *Lynpo*: 'Cabinet Minister') Tobgye initially completed a three-year LMF ('Licenseship of Medical Faculty') degree and later obtained an MBBS in India. Although not a high-ranking aristocrat by birth, he went on to become Head of Health Services, personal physician to the King, Government Minister, and Ambassador to India. He was a contemporary of Dr. Karpo Tsering, the other early qualified biomedical practitioner, who was also from Ha.

In addition to the Ha-Kalimpong educational initiative, another school was opened at Bumthang in 1915, and a teacher was also sent to the Maharaja's court at Punakha around that time to instruct the Royal children. In 1917, these schools were inspected by Mr Hornell, Bengal Director of Public Instruction.[46] Dr. Graham himself visited Bhutan in 1921, and although the initial missionary emphasis in Bhutan was on education rather than medicine, Graham is credited with introducing the use of iodine for the treatment of goitre there.[47] As in Sikkim and Tibet, it was the development of a Western-educated class of Bhutanese, familiar with biomedicine and its associated worldview, that enabled the emergence of the first indigenous biomedical practitioners.

In the absence of state or imperial government funds, royal and aristocratic patronage was essential to this development process. Raja Urgyen Dorje covered most of the expenses of the Ha-Kalimpong school from his resources,[48] and Maharaja Urgyen Wangchuk ensured that his own family received some Western education. After Urgyen Wangchuk's death in 1926, his son and successor, Jigme Wangchuk, continued his policies. In 1943, for example, it was noted that he was paying the expenses of two former pupils at the Ha-Kalimpong school who were studying at Campbell Medical College in Calcutta.[49]

While patronising Western learning, the Maharaja, like his fellow traditional rulers in Chamba and other Himalayan states, did not cease to sponsor traditional institutions.[50] Instead, these new systems were incorporated into traditional roles and structures; pluralistic medicine generated pluralistic patronage. As in kingdoms such as Chamba and Sikkim, it appears that patronage was an intermediary step before the state's assumption of support, and a correlation may also be noted be-

tween the traditional Royal patron's eventual loss of political power and the usurpation of his patron's role by the state.

In addition to those Bhutanese who were introduced to biomedicine through Western education, many received biomedical treatment at the mission hospitals in Kalimpong, while others visited the small Scottish mission dispensary established early in the 20th century just across the border at Todey.[51] Although the development of indigenous state biomedical structures did not begin until at the earliest the 1940s, the aristocratic and trading classes were thus made aware of the new system. The first record of any structure is Tennant's report from 1933 that there was 'a more or less permanent dispensary' in Ha where (biomedical) 'treatment [was] readily sought after', and he attributed its success to the number of educated persons residing there.[52] But there is no further mention of this dispensary or of the one in Bumthang and, furthermore, both appear to have been private initiatives. When the British left South Asia, Bhutan still had no resident Europeans, and also lacked any significant biomedical structures.

The colonial period: Some conclusions

Imperial initiatives to introduce biomedicine to Bhutan reflected the wider political context of the period. The primary concern of the British was to ensure the security of India's northern frontier by cultivating ties with Tibet, which was most easily approached through Sikkim. Having gained the control over Bhutan's foreign affairs necessary to their security interests, the British had little concern for its internal affairs. The Political Officers responsible for this frontier were pre-occupied with Tibet, and to a lesser extent Sikkim, at the expense of Bhutan. These priorities were symbolised by the fact that the British did not establish a Residency in Bhutan, or even open Trade Agencies there on the Tibetan model. The lack of biomedical structures and centres was one consequence of the absence of a permanent imperial representative in Bhutan.

Bhutan could not afford to develop its own biomedical structures as its cash income was largely restricted to the annual British subsidy. That subsidy was a mere 50,000 rupees until 1910, when it was doubled, and a similar sum was given annually to Bhutan from around 1920 to compensate it for moving liquor shops ten miles back from the Indian border. Gould was finally able to get the subsidy doubled again in 1942, but the cost of supporting the state administration and monasteries left little finance available for development projects. While a number of possibilities were investigated, revenue-raising schemes of

the type introduced in Sikkim were still in their infancy when the British left.[53]

With the Bhutanese government unable to afford modernisation measures, and unable to obtain any extra funding from the Government of India, progress was limited to such privately funded initiatives as the Ha-Kalimpong school. The issue of voluntary medical workers being recruited to work in Bhutan does not appear to have been seriously considered. Had a program for the introduction of biomedicine into Bhutan been intended that was entirely free of political considerations, private doctors might have been given permission to practice there or volunteers sought. But the only medical practitioners considered likely to volunteer their services for any extended period were medical missionaries and fears – shared by both the Political Officers and the Bhutanese government – of their impact on the local culture ruled out that option.

But the visits by the IMS officers demonstrated that a demand for biomedical services existed in Bhutan, not least in regard to epidemic conditions. As in Sikkim and Tibet, the indigenisation of vaccination first demonstrated that biomedicine was not an exclusively European preserve, but the establishment of a body of Western-educated individuals was necessary for indigenous biomedical advancement. While the Political Officers supported the extension of modern education to Bhutan no imperial funding was available for this and the development of schools in Bhutan was largely due to the initiatives and support of Dr. Graham and Raja Urgyen Dorje, who thus laid the groundwork for the modern indigenous biomedical system in Bhutan.

But what seems to have been the critical factor behind the eventual development of biomedicine there was that the Bhutanese rulers from Urgyen Wangchuk onwards were keen to introduce that system into their kingdom. Despite the extreme financial restrictions, they encouraged its development there, firstly through allocating funds for general education, and then through funding specialised medical education and training in India. The British contribution was limited to advice, and to providing medicines for the use of visiting medical officers; the Government of India did not provide any regular funds specifically for medical purposes there.

Although the British were successful in gaining the consent of the indigenous elites for the biomedical project, biomedicine had made little impact or structural advance there when the British departed. A Western education was an essential precursor of biomedical training, and whereas the Sikkimese began that educational process in the late 1880s, it arrived a generation later in Bhutan, which meant that, as a consequence, it was a generation behind Sikkim in its production of biomedical professionals. The result was that many of the issues that

had been dealt with in Sikkim in the colonial period, emerged in Bhutan in the post-colonial era. That period will be examined in the following pages. It is not possible to provide a comprehensive account of this development in the space available, and thus the narrative is selective, accentuating those elements of the expansion of biomedicine that have emerged as significant in earlier chapters.

Post-colonial developments

When the British withdrew from their South Asian empire in the late 1940s, Bhutan was almost entirely lacking in the infrastructure that had been developed in Sikkim and the Himalayan districts of India. Even Tibet was better equipped in terms of roads and communications, as well as military, administrative, and even public health systems. While the Tibetan state was already employing foreign technical advisors, Bhutan remained closed to outsiders when the last British Political Officer in Sikkim, Arthur Hopkinson, handed over command to the new Indian Political Officer, Harish Dayal ICS, on 1 September 1948. But unlike Tibet, Bhutan had retained its independence. Under an agreement signed in August 1949, India acquired the British role, allowing Bhutanese internal autonomy and national independence, in return for which Bhutan agreed to follow Indian 'advice' in foreign relations.

The sense that Bhutan was entering a new era was enhanced by the death of King Jigme Wangchuk in 1952, and the accession of his son, Jigme Dorje Wangchuk. In 1953, a National Assembly was formed and the records of its sparse early proceedings suggest a very tentative experimentation with democratic processes. However, public health issues were an area of consensus. One of the first proposals made by the Assembly in 1953 was to set up 'an indigenous medical school',[54] although it is unclear whether this refers to Traditional Medicine or to an indigenous biomedical school. While there were no immediate developments in that regard, by the end of that decade there were sixteen biomedical health clinics in Bhutan, of which five were being upgraded to hospital status. The cost of building these clinics was largely met by local labour and construction, with the government then provisioning the clinics and providing staff, many of whom were those trained in Kalimpong.[55] Such developments were accelerated with the introduction of Five Year Plans in 1961. The 1950s and 1960s thus saw the preliminary development of a Bhutanese public health system, with an emphasis on the development of indigenous structures and the extended training of Bhutanese medical practitioners to compounder level in Kalimpong and to full qualification at Indian medical schools.

One significant decision was to adopt the British model of state provision of free medical treatment for all classes of people and to reject private medicine (even today there are no private medical practitioners permitted in Bhutan). But in the absence of sufficiently trained medical professionals, the health system relied heavily on foreign practitioners, particularly from India, but also European specialists, including medical missionaries.

Indian doctors, generally from northeastern India, were employed on a contract basis. Bhutan's isolation meant that it was not an appealing posting to many, and the quality and dedication of those who came naturally varied,[56] but there were those who found it very much to their taste and they managed to earn the respect of the Bhutanese. One example is Dr. I.K. Mohanta, who is currently the pathologist at the main hospital in Thimpu. Born and schooled in Upper Assam, he did his MBBS at Assam Medical College, graduating in 1964. Not initially drawn to medicine, he was encouraged to take it up by a distinguished former doctor that he respected and was subsequently encouraged by one of his College professors to take up pathology. He gained an MD in Pathology and Macrobiology at Gauwhati Medical College in 1969-71, where he met another Assamese doctor, J.N. Sharma, who had served in Bhutan. Dr. Mohanta agreed to a trial period in Bhutan and there he has remained, acting as Thimphu Hospital Superintendent in 1984-85, but preferring the practice of pathology.[57]

Another doctor to make his mark in Bhutan was Tsewang Y. Pemba, who, as noted, was the first Tibetan to qualify as a biomedical physician and surgeon. Dr. Pemba was invited to Bhutan by Jigme Palden Dorje, the grandson of Raja Urgyen Dorje and later Prime Minister of Bhutan. Dr. Pemba (whose wife is Bhutanese), spent three years at the new hospital in Paro, and later returned to Bhutan to serve as Superintendent of the Thimphu Hospital from 1985 to 1990.[58]

Just as Raja Urgyen Dorje and his Maharaja had originally promoted Western education in Bhutan, so too did their direct descendants finally turn to European missionaries to provide medical services in Bhutan. This change of heart was doubtless due to their observations of the missionaries' activities in this region during the preceding century. While the medical missionaries in Kalimpong had established biomedical services there that were clearly beneficial to the community, they had largely failed in their efforts to convert Buddhists to Christianity. They had had a similar record in Sikkim, where Mary Scott was highly regarded and liked by the Sikkimese rulers but had made few converts. There were close links between the ruling families of the Himalayan Buddhist states and knowledge of her activities would have spread to Bhutan, not least through the marriage of Raja Urgyen Dorje's son Sonam to one of the Sikkimese princesses.[59] It was their son Jigme Pal-

den Dorje who invited Dr. Pemba and he also invited Dr. Craig, a leprosy specialist from Edinburgh who served as Superintendent of the Charteris Hospital in Kalimpong, to come to Bhutan to advise on the setting up of a new hospital in Thimphu.[60] Dr. Craig's activities were well-known to the Bhutanese. Around half of the leprosy patients in Kalimpong were from Bhutan,[61] and not only had Bhutanese youths trained under Dr. Craig in Kalimpong but the Royal Family had been treated at the Charteris Hospital (the present King Jigme Senge Wangchuk was born there in 1955), and the Bhutanese Queen Mother had even done voluntary work there.[62] Finally satisfied that the missionaries were unlikely to convert Buddhists, the Bhutanese, although continuing to forbid Christian evangelism, accepted Christian doctors and teachers from the 1950s onwards. In this latter category the Jesuits made a particular impression, with much of Bhutan's present ruling class having received a Jesuit education.[63]

The Kalimpong influence remained strong, with most Bhutanese medical practitioners, including many nurses, training at the hospital there. Dr. Tashi Yongten, for example, was born in Bhutan, schooled in Bumthang and Kalimpong, and then attended St Joseph's College in Darjeeling. His parents were deeply religious and encouraged him to take up medicine as it was 'good action' in the Buddhist sense. Dr. Yongten took his medical degree at C.B. Medical College in Orissa and after returning to Bhutan in the mid-1960s served as Medical Officer to the Maharaja, and became Director of Health Services.[64]

A similar career pattern was followed by Dr. Samdrup, perhaps Bhutan's best-known biomedical pioneer. A grandson of Kazi Dawa Samdrup[65] (1868-1922), a Sikkimese aristocrat and translator of the *History of Sikkim* who became Professor of Tibetan at Calcutta University, Dr. Samdrup was born in Darjeeling and educated in Kalimpong. Motivated by the desire to 'do something' and to support his family, he took up medicine and graduated from Assam Medical College in 1961. His grandmother's suffering from cataracts inspired him to take up surgery to help others with that condition and in 1963 he went to Bhutan, performing 33 cataract operations when he arrived. At first, having only ever practised on a right eye, he only operated on that one, but he received further training from visiting doctors funded by the Lions Club, which sponsored a number of medical camps in Bhutan at this time. His later career was a symbol of the growing internationalisation of Bhutanese medical systems. Dr. Samdrup went on to work with UNICEF, and to travel to Switzerland with the Maharaja, who was treated there for a cardiac condition before his death in 2002. In the 1980s Dr. Samdrup worked with the World Health Organisation in Switzerland and Sri Lanka. He had previously attended the World Health Organization conference in Alma Ata in 1978, which promoted medical

pluralism,[66] and it was here that he was influenced by the Sri Lankan's patronage of Traditional Medicine. Dr. Samdrup was later posted to the WHO Delhi regional office working on the leprosy programme there. In 1996, he returned to Bhutan, becoming Chairman of the Polio Commission from 1997, with further studies in Hawaii the following year, before his final retirement.[67]

As in Sikkim, the construction of a modern public health system and the promotion of biomedical understandings in Bhutan has required certain social negotiations. One example of this was the problem of stray dogs, which were potential transmitters of diseases such as rabies. Whereas in Sikkim a dog-licensing system had been introduced in the 1920s, the National Assembly, after a long-running debate, concluded in 1970 that 'Bhutan being a Buddhist country, the killing of dogs should be exclusively restricted to the mad ones',[68] and to this day there are large numbers of stray dogs in the urban areas of Bhutan.[69] Similar political negotiations may also be observed in regard to their acceptance of international aid from a very limited group of traditionally non-aligned nations with no regional political interests, such as Canada, the Netherlands, Denmark and New Zealand.

The religious sentiments of Bhutan can create certain tensions in the medical sphere, malaria control, for example, can be seen as contrary to Buddhist practice in that it involves killing living creatures. But it may just as easily be justified on the grounds that these disease-causing creatures are not compassionate beings. Abortion is a similarly complex issue. Today, efforts are being made to articulate these issues in terms compatible with traditional models of understanding. For example, the encouraging of villagers to keep the local water source pure can be expressed in terms of avoiding polluting the realm of the local water-spirit, while understandings are translated into terms that equate germs to demons, pulse to blood pressure and so on. Similarly, with the local practice of blood-letting, which in the context of HIV is problematic, there is no local taboo against sterilising the instruments used and so local healers are encouraged to do that.[70]

A very different example involves the smoking of tobacco, which the Bhutanese considered offensive to the Buddhist deities. Bhutan's founder, Shabdrung Ngawang Namgyal, is credited with having 'enacted the first-ever ban on smoking in public when he outlawed the use of tobacco in government buildings' in the 1640s,[71] and Bhutan today has the strictest laws against tobacco consumption of any nation on earth.

Structures and diseases in Bhutanese public health

By 1964, there were dispensaries staffed by compounders in each of Bhutan's 23 districts and four biomedical hospitals, the biggest of which was a 50 bed hospital in the capital Thimphu. It included separate male and female wards, an operating theatre, dispensary, dental department and 'rudimentary' laboratory, with an x-ray machine 'to be installed'.[72] It eventually was, and a TB ward was also added, but it was increasingly clear that a new hospital was needed to replace this basic wooden structure, which was located across the river from the royal castle dominating Thimphu. Due to the Bhutanese Buddhist custom of always circumambulating the royal centre to the right, that hospital had to be approached by a detour around the castle, which was not medically appropriate in emergency cases.

A new hospital, which came to be named the Jigme Dorji Wangchuk



Jigme Dorji Wangchuk National Referral Hospital in Thimphu

National Referral Hospital, was developed with considerable input from practitioners such as Dr. Samdrup and Dr. Craig.[73] Maximum use was made of available resources, with Dr. Samdrup ensuring that the operating theatre was situated so that when the sun came up in the morning it would warm up the theatre. The hospital was officially opened in 1974, which was fortuitously the coronation year of the new King, Jigme Senge Wangchuk. Patients, however, were first moved into the hospital one rainy night in October 1973, when the old hospital was damaged by floods and had to be quickly evacuated.[74]

The new hospital provided a centre for the training of Bhutanese medical personnel and a Dr. J.S. Berkeley of the University of Aberdeen, who had previously worked in Bhutan on a leprosy survey in the period 1968-70, was invited to establish a medical training school in Thimphu, with WHO and UNICEF funding.[75] The emphasis of that program was on training primary health care workers for rural areas, and a WHO-funded nurses training program was also instituted around this time with Dr. Berkeley and his wife teaching there. Registered nursing qualifications were obtained after a three-year course and various sub-disciplines such as dentistry and physiotherapy were also introduced; today all Bhutanese nurses are trained inside the country.[76]

Prior to this nurses training program, most nurses were trained in Kalimpong while others learned 'on the job' in Bhutanese hospitals, and there were no ranks or specialisations. Nurses, whose work pattern was fourteen days on, one day off, did not enjoy a particularly high status and had no prospects for advancement. While their motivation might be similar to that of doctors – the long-serving Sister Pasang Om recalls that having seen her uncle being taken care of by nurses in the old hospital she liked the idea of medical service – they were not necessarily well-educated; Sister Pasang, for example, began nursing in 1966 at the age of 13.[77]

Biomedical development had gender implications in providing state employment for women such as Pasang Om, the only breadwinner in a family with three children. As in other Himalayan Buddhist regions, Bhutanese women had traditionally enjoyed a higher status than in the neighbouring Sino-Indian and Central Asian societies, including economic freedoms, but biomedical developments provided new opportunities for female advancement, particularly in regard to women and children's' health issues. While there are no records of child mortality in the colonial period and there was no register of births and deaths until the 1970s, the child mortality rate was apparently very high.[78] As in Tibet, indigenous medical practitioners did not deal with maternity cases for reasons of purity and women in labour kept this secret from all but their immediate household. Childbirth thus took place in the home with, at best, the attention of another woman with some experience of midwifery. Traditional post-natal purification rituals and an isolation of the home of newborn babies offered some protection from disease but childbirth complications were frequently fatal.[79]

While the Bhutanese aristocracy might travel to give birth at Kalimpong, maternity care for the majority of Bhutanese developed slowly. It initially focused on primary health care workers locating expectant mothers and encouraging them to receive pre-natal care. But in 1969, Dr. Harku Norbu arrived in Bhutan as the first gynaecological specia-

list. Originally from Kalimpong, Norbu had studied medicine in Calcutta, where she met her husband Dr. Jigme Norbu, who was the Lhasa-born son of Rai Bahadur Norbu Dondhup, a leading intermediary between the Tibetan government and the Political Officers in Sikkim in the 1920s and early 1930s. Dr. Jigme Norbu was educated in Kalimpong and the Jesuit college in Darjeeling, graduating in science in 1959. He had been a classmate of Dr. Yongten at Darjeeling, and chose to work in Bhutan rather than India, arriving there with his wife in 1969. They received Bhutanese citizenship from the King in 1976, and both subsequently served terms as Superintendent of the JDW hospital in Thimpu, Dr. Jigme from 1978-82 and Dr. Harku in 1990-92, and Dr. Norbu is remembered as the leading figure in the development of maternity and gynaecological structures in Bhutan.[80]

Smallpox had almost disappeared from Bhutan by the 1960s. But Dr. Samdrup recalls that in 1965 a truck stopped outside the old Thimpu hospital, dropped off one of a number of Nepali labourers who were employed in building work on the Royal castle, and sped away. The labourer was confirmed as having smallpox and most of the other labourers immediately fled, spreading smallpox throughout Bhutan. The new TB ward at the hospital had just been completed and was empty, so this was used as an isolation ward in the ensuing epidemic, where the death rate was around 50% of those infected. The victims were burned rather than given the traditional burial. Despite problems with the quality of the lymph provided, the epidemic was eventually controlled. Procedures were instituted to deal with future outbreaks via isolation, a development of the traditional practice and one effective under the traditional rural population dispersal throughout remote valleys. But this was the last major outbreak of smallpox in Bhutan, although, due to difficulties of access and inadequate recording systems, it was not certified by the WHO as smallpox-free until the late 1970s, shortly before smallpox was globally certified as eliminated.[81]

More problematic in this period were leprosy and goitre, both of which were widespread in Bhutan. A leprosy hospital was opened in 1965 and developed under Dr. Berkeley; the disease gradually became less common until today when it is rare. Endemic goitre was dealt with by banning the sale of non-iodised salt in the late 1960s.[82] In 1985, the Bhutan government commissioned its own salt iodisation plant,[83] and in 2004, the Prime Minister reported that goitre now affected under 5% of the population, in contrast to the 1983 figure of 64.5%.[84]

Since June 2003, the Bhutanese Ministry of Health has been divided into two departments, Public Health, and the Health and Education Department, which is concerned with primary health care and the development of curative systems. There are some 120 doctors, 70-80 of whom are Bhutanese nationals[85] and fifteen students are annually sent

for medical training, so that the medical services are expected to be fully indigenised within a decade.[86] A new 350-bed addition is being made to the JDW National Referral Hospital with Indian government assistance and there is now at least one Grade One hospital per district – a total of 29 in the 20 districts – with Basic Health Units in all but one district of Bhutan.[87] These Basic Health Units are staffed by a Community Health Worker, a medical assistant and a midwife. They focus on clinics and preventative work, encouraging villagers to use latrines and to keep water sources pure. Similar work is carried out in village and community schools.[88]

While India, China-Tibet, and Nepal allow private medical practice, Bhutan today remains the only Himalayan state where there is no private medical practice of any kind allowed. They believe there are a number of advantages to the state monopoly on medical practice. It allows more comprehensive health surveillance and reporting systems and enables quicker responses to major problems. A state presence and strong medical services in the rural areas is also considered helpful in preventing urban drift (including that of older people) while the emphasis on early 'on the spot treatment' (especially in rural areas) prevents many conditions from deteriorating, thus reserving the hospitals for serious problems.[89] While there is a shortage of medical practitioners in Bhutan, private practice is not seen as a permanent solution to that problem. At present, patients of all social classes are said to be 'in the same boat' in terms of their treatment options and a wide range of tests can be done that many could not afford with private practice.[90] Ultimately, however, it seems to be a question of quality, with private practice seen as leading to a lowering of standards. As one doctor put it; 'If a man buys a truck and makes money, everyone wants to buy one';[91] i.e., if medicine is seen to be profitable, profit will become the motive for the establishment of a practice.

There are dissenting views in this regard, with some seeing private practice as a solution to the shortage of doctors. One factor contributing to this lack is that citizens of neighbouring states are increasingly drawn to Bhutan not only because the medical services are free there, but also because they are now better than those of their neighbours. While an Indian Medical Service type arrangement where doctors were permitted to charge fees for private consultations with the elites while providing free treatment for all at dispensaries might be considered as a future compromise, the principle of government control is a significant one. The principle of free medicine remains sacrosanct despite the introduction of fees for non-essential treatment such as cosmetic dental work and drugs not among the list of those considered essential. Free treatment extends to those sent out of the country for advanced conditions such as hip replacements and kidney transplants.[92]

Certain problems are seen as arising from free medical services; patients call doctors with minor complaints and may have unrealistically high expectations of treatment, demanding ultra-sounds, caesareans, etc. Doctors' workloads are thus high and they are effectively always on call. The allocation of resources remains problematic and Bhutan is also affected by global health 'fashions'. The institution of anti-HIV measures, for example, on which international agencies now place great emphasis, takes resources previously devoted to diseases such as malaria, which could be more devastating in practice. While Bhutan has the advantage of being a Buddhist country on good terms with its neighbours, and thus spends very little on defence, medical costs are potentially infinite, and the increasing costs of the system are an increasing problem.[93] However, this is not a problem restricted only to Bhutan. The Prime Minister's admission that 'the services that are available can never compare favourably with the actual need of our people'[94] could be applied to just about any country.

Medical ethics: A shared belief?

One theme that emerges strongly from medical research carried out in Bhutan concerns the conceptual framing of the doctor's place in society, which appears to reflect Buddhist ideas of 'right livelihood' , and to also derive from established Himalayan social hierarchies and concepts of duty and responsibility. The concept does not appear to be affected by the type of medical system the doctor follows, but was a factor encouraging the uptake of biomedicine as a career, with a number of subjects noting that they were attracted to medicine by the desire to dedicate themselves to service.[95]

> In Bhutanese Buddhist culture the medical profession is looked up to and it is felt that doctors are fortunate to be in a position where they can help people – and therefore they should help people. So there is a responsibility with the duty. Many feel doctors don't need to pray because their performance of their duties is a prayer.[96]

Similar sentiments were expressed by virtually all of those interviewed for this project. Medical practice is considered 'good action' or 'right livelihood', which are basic Buddhist concepts of the proper path to enlightenment. A doctor's status is equal to that of a monk. They are both perceived as performing good work albeit in different fields, and the doctors themselves also perceive their work in these terms, with several referring to their hospital as the 'temple' in which they practice reli-

gion.[97] Since doctors are perceived to be responsible to the community and have a duty to be concerned for their patients, it is acceptable to telephone a Bhutanese doctor at home, or to stop them in the market for medical advice, and the doctors, perhaps ruefully at times, do appear to accept this role. Obviously, there is a degree of rhetoric involved in this situation and, as is the case anywhere, individual standards vary. But this issue is at the centre of the medical discourse in Bhutan and there is a general articulated concern for patients as well as an awareness of the ideal doctor and the status bestowed on those who live up to that ideal.

The status of medical practitioners does not appear to be related to the practice of a particular medical system. It is also valid for foreign doctors, particularly Europeans who status is enhanced because they are seen as professionals who have renounced a richer worldly lifestyle in order to serve in Bhutan. Despite the current Bhutanisation process, this concept survives.[98]

There is evidence that medical practice here reflects the ideal to a greater degree than elsewhere. Bhutanese doctors are highly respected in neighbouring states and the corruption common to these regions is absent among these doctors. Medical staff routinely work longer hours than in other branches of government and perform beyond their duties. Technicians, for example, helped to design a new laboratory in Thimpu.[99] Perhaps most significantly, young Bhutanese sent abroad for medical training invariably return to their own country. The vast drain of medical professionals to the West that afflicts other Asian nations simply does not occur in Bhutan.

The increasing pace of modernisation is bringing higher expectations and demands in the medical field, as is the case among the general public. Indeed, the very necessity of having to articulate the doctor's ideology may indicate that it is becoming a threatened ideal. But the Bhutanese King's stated policy of prioritising 'Gross National Happiness' above 'Gross National Product' has led to a debate over the nature of Bhutanese identity and the shape and priorities of its future development. One contribution to this debate has been by Dr. Gado Tsering, Officiating Secretary of the Health Department. By explicitly drawing on Buddhist models, he has described an ideal of 'Bhutanese doctoring', which emphasises 'Kindness, Compassion, and Politeness' as the key features of a doctor's relationship with the patient, for whom a consultation should resemble 'a visit to a good friend'. Touching a patient – to indicate that the doctor does not consider the patient of a lower status – is an essential feature of this model, but he recognises that this requires prioritising time, which is becoming increasingly difficult in modern Bhutan.[100]

Patient-based enquires are needed to ascertain the extent to which the Bhutanese public health system actually embodies these conceptual ideals. But the fact that these debates are significant issues in contemporary Bhutanese society is an indication of the extent to which biomedicine is shaped as a system by local cultural factors, not only in terms of concessions to indigenous practice, and the indigenisation of personnel and structures, but also in terms of the wider conceptual locating of biomedicine within society. While the ideals expressed in Bhutan are by no means foreign to Western medical practitioners, the extent to which they are at the forefront of the construction of a national medical system reflects the traditional culture of Bhutan. So too does the most outstanding characteristic of the Bhutanese public health system – the extent to which it has integrated Bhutanese Traditional Medicine into the state medical system.

Bhutanese traditional medicine

The imperial sources are silent on the extent of interaction between biomedicine and the indigenous traditions of Bhutan in the colonial period. As in Sikkim and Tibet, biomedical practitioners in its initial development phase ignored the local medical practices under the implicit assumption that these would fade away. In the 1950s and 1960s, the Jesuit missionaries did experiment with treatment under both systems, offering, for example, local medicine for diarrhoea but treating bacterial infections with penicillin.[101] But the two systems were kept separate at the state level, with government (and foreign aid) support going to the development of biomedical structures. Patients, however, exercised their own choices. As one health official recalled; 'People would try allopathic medicine and if it didn't work they would go back to traditional medicine, some just went first to traditional healers.'[102]

It was recognised that factors such as ease of access, local language familiarity, and religious understandings all favoured continuing resort to local healers and that local medicine was liable to be preferred in cases where people knew from previous experience that it worked. Nor was biomedicine necessarily immediately appealing, its dietary restrictions on items such as salt were unpopular, the prospect of surgery frightening and the need for return visits not understood.[103] As one Bhutanese doctor put it; 'Biomedicine takes time to learn about just as electricity, when it was first introduced, brought many electrocutions, and cars brought many accidents. It took people time to learn to use them.'[104]

As in Sikkim and Tibet, this 'learning phase' took at least one generation, but in contrast to the situation in India and amongst the Tibe-

tan exile community, medicine does not appear to have been located in a nationalist context during this period. Bhutan did not engage in an anti-colonial struggle for independence, or develop nationalism based on the European model. Local, regional, and religious identities were generally more prominent than national identities and, in the absence of nationalistic issues, a pragmatic approach predominated. Biomedical doctors were aware that 'long-term patients would float around', observing, for example, the marks of burns left by the local practice of cupping, which indicated that the patients were also receiving local treatment. They would attempt to persuade patients not to combine treatments, but otherwise accepted the practice.[105]

Again as in Sikkim and Tibet, the development of biomedicine was characterised by selective acceptance. This was not just a question of resort for particular medical conditions, but demand for particular treatments such as injections and X-rays, which were especially popular. So too were Penicillin and Tetracycline and their use spread widely, with lay people giving injections and keeping a stock of antibiotics in their homes for a variety of illnesses.[106] Thus, there was an understanding that at least some efficacious biomedical treatments were 'free standing'; their inherent efficacy existed outside of the power complexes and the authority of the elite or upper-class medical practitioners; it was available to one and all. However, this does not appear to have affected the status of medical practitioners, suggesting that a doctor's status was primarily based not on efficacy, but on intent – compassionate motive and action in the Buddhist sense.

Faith in biomedical treatments developed particularly as a result of their efficacy in regard to chronic diseases such as leprosy, smallpox, TB, diabetes, and pneumonia; conditions that local medical treatments could not control. While it does appear in the early period that monks advised people against seeking biomedical treatment, once the monks themselves – and even local doctors – turned to biomedicine there was increased confidence in the new system.[107] But surgery was slower to find favour, perhaps because the Bhutanese had not had an early introduction to surgery as had the Tibetans wounded in battles against the imperial forces. However, with the increased understanding of biomedicine that came from education and empirical experience, surgery too became increasingly common.[108]

While biomedicine's prompt action was a factor in attracting patients, Bhutanese medical personnel emphasised that the visual aspect of biomedical treatment was also of great importance. Laboratory reports, x-rays, ECGs, and ultrasounds could all be shown to the patient, as could kidney stones and other internal growths removed from the body. This meant that even the illiterate could understand their condi-

tion and its treatment, increasing the understanding of and confidence in, the new system.[109]

But the key factor that led people to take up biomedicine remained a Western knowledge-based education. Even today, there is a divide between the educated, who favour biomedicine, and the uneducated, whose first resort is to the local system.[110] Given the educational developments that have taken place in Bhutan in recent decades, the 'uneducated', in most cases, means the elderly and those in the more remote districts. This might suggest the decline of the indigenous system, but while this appeared to be a possibility in the 1960s, state intervention has produced a very different result.

The state medical system in Bhutan has, since the 1970s, integrated local practices into its biomedical institutions. While emergency treatment remains biomedical, hospitals throughout Bhutan (with the exception of those in Thimpu), now provide patients with a choice of treatments offered by biomedical or local practitioners. While there are as yet no formal referral structures other than in the case of notifiable infectious diseases, doctors are free to refer patients to the alternative system and there is interaction and dialogue between practitioners. While local practitioners refer patients for tuberculosis, conditions requiring surgery and so on, biomedical practitioners accept the efficacy of local treatments primarily for non-specific chronic diseases, psychiatric conditions, and ear, nose and throat problems. With both systems providing free treatment and medicines, economic factors do not appear to affect resort and patients commonly adopt the strategy of changing systems if their condition is not responsive to one treatment. The belief remains, however, that biomedicine is fast-acting, and patients may thus have less patience with biomedical treatments than with the traditional.[111]

The systemisation of Traditional Medicine began in the 1960s with the establishment of an Indigenous Medicine Unit, a dispensary staffed by two *Drungtsho*s (Doctors), Pema Dorji and Sherub Jorden, both of whom had trained in Tibet.[112] The Unit was formally recognised by the Royal Government in 1967 and its development as a modernised division within the Bhutanese public health system began. In 1979, it was upgraded and became the Institute of Traditional Medicine Services and a new hospital and training centre were built in Thimpu. It is only in the capital that, due to the numbers of patients, the two systems are separated; the hospital at the Institute of Traditional Medicine Services provides traditional treatment while the Jigme Dorji Wangchuk Hospital provides only biomedical care.

In certain respects, biomedicine remains hegemonic in Bhutan. Emergency treatment (wounds, fractures, etc.), is biomedical, and patients are sent for specialist treatment abroad only under biomedical

auspices. Because there was neither an indigenous surgical tradition nor did Bhutanese Traditional Medicine practitioners deal with maternity cases, both areas are almost exclusively biomedical domains today, as is the treatment of infectious diseases. But while the structural development of Traditional Medicine may have lagged behind biomedicine, and the leading figures in the public health system are primarily biomedical graduates, there is continuing official support for the traditional system, and considerable tolerance towards it among biomedical practitioners themselves.

While the development of the Institute of Traditional Medicine Services does represent a modern systemisation and centralisation of the traditional medical practices, it remains a living tradition, engaging with local practitioners and encouraging innovation and development rather than focussing on the selective reconstruction of elements of the past. Traditional Medicine does function as a complementary system and does so explicitly within the context of Bhutanese Buddhist cultural understandings and practices. These latter aspects also define the construction of the identity of 'the doctor' in both systems in Bhutan today.

In addition to the official integration of Traditional Medicine, biomedical hospitals in Bhutan have also introduced another initiative that adds an indigenous dimension to biomedical practice. We have seen that accepting and facilitating the patient's right to consult monks when considering such issues as an auspicious day for elective surgery has contributed to the acceptance of biomedical treatment in Tibet. In the early 1990s, the Bhutanese government formalised this practice when they placed a monk on the staff of each of the regional hospitals.[113] In addition to carrying out daily purification rituals in the wards, which is considered of psychological value to the patients, the monks assist in mediating such issues as family planning. They are considered particularly valuable in cases of amputation where there is a Bhutanese belief that those losing a limb will also be reincarnated minus the amputated limb in their next existence, a belief the monks are able to negotiate. It is a Bhutanese custom that a monk should be present when people are dying and the hospital monks spend much of their time in this role, performing the appropriate rituals. While a desire to be left alone may be common among the ill in the West, patients in Bhutan prefer company, and the presence of the monks is particularly comforting to those without families or those from remote districts whose families are not present. Biomedical staff view this initiative with cautious optimism, considering that they work toward the same objectives as the monks, and that 'you must work with them not oppose them'.[114]

One factor behind these initiatives was that members of the Royal family have acted as patrons to both local and biomedical practices. They themselves have both a biomedical physician and a Traditional Medicine consultant and they have also been exposed to biomedicine in Kalimpong, which has made them more aware of its benefits than people restricted to Bhutan. But they have continued to offer support to the local system. Given the nature of Bhutanese society, royal opinion remains important. But medical officials note that they – and the royal family – have also responded to people requesting the establishment of medical services in their area, and they have contributed labour and materials for the construction of various medical clinics. Doctors recognised that, in rural areas, 'what we thought was good was not always what they thought'.[115] Preventive campaigns where the need was not obvious to the people brought only slow acceptance, whereas the people wanted, for example, measles vaccinations as they could see their children dying of this condition. As one official remarked; 'The locals weren't fools, they had different aims, and we had to listen to them.'[116]

Perhaps the key reason why patients continue to resort to the traditional system was the recognition that biomedicine could not cure all of the manifested medical conditions. Resort to Traditional Medicine was a logical strategy, particularly in those areas where biomedicine could not provide a guaranteed cure. But the simple fact of the availability of a medical practice encourages resort and state support both in material terms and in terms of social authority mean that Bhutanese state support for Traditional Medicine must be considered as a factor explaining patients choice of that system. In simple terms, the establishment of dual-system public health clinics has meant that patients have had access to a medical clinic, while the fact that the practitioners there provided state medical resources, meant the clinic embodied state authority in the field of medical knowledge.

There is, however, a wider dimension to consider. Today Bhutan is a developing nation, but it also one that explicitly questions the models of development that have been applied elsewhere in Asia in recent decades.[117] Having observed the social, cultural, and environmental degradation as a result of the encounter with modernity in places such as Lhasa, Kathmandu, and Dharamsala, Bhutan has sought an alternative model, one more in tune with the country's Buddhist principles. Contemporary medical developments and articulations of health policy in Bhutan are related to this wider enquiry.

There have been great improvements in a short period of time in the health conditions of people in Bhutan, where health statistics are now among the best in Southeast Asia. A willingness to question received models from external sources and a desire to continue with indigenous models is implicit in this successful development. Whether the ele-

ments of the system considered traditional can survive Bhutan's continuing encounter with modernity is another question, but the existing system does represent a continuation of ideas and understandings that earlier medical practitioners – missionaries, IMS officers, and local practitioners alike – maintained and generally lived up to. Their footprints thus remain.

6 The Choice of Systems

Biomedicine in the Indo-Tibetan world today is part of a pluralist world of medicine comprising elements of various traditions and practices. Its structures and personnel have been largely indigenised and no Western doctors hold permanent appointments there. Biomedicine is recognised as being of foreign origin and has associations with local and global modernities rather than indigenous religio-cultural traditions. But it has become firmly rooted in the local medical world following practical concessions to local cultural understandings and the adoption of many aspects of its practice and theory by indigenous medical practitioners.

Reflecting wider social responses to modernity, the medico-cultural fractures induced by the introduction of biomedicine have resulted in a reformulated medical world. But medical cultures are intrinsically dynamic and constantly evolving.[1] While biomedicine is structurally dominant at the state (or exile-state) level, indigenous medicine also receives state support in much of the region we have considered and it increasingly profits from the growing global interest in Traditional Medicine.

With Western biomedicine indigenised and Tibetan Medicine systemised and internationalised, the boundaries between systems have blurred. Both actively promote their benefits and at least implicitly critique other medical forms, but patients routinely switch between, or combine, therapies. In recognition of that reality, there is increasing communication between the various competing practitioners in this medical world, and even a growing sense of shared community indicative of a fully-formulated cultural system.

Such pluralism seems historically characteristic of medical encounters in this region, and is consistent with the conclusions of scholars such as Charles Leslie whose findings indicate that 'patients are, almost without exception, pragmatic, and see nothing inconsistent about liberally combining different forms of therapy in their quest for restored health'.[2] Craig Janes, for example, in a groundbreaking study of contemporary resort to biomedicine in the Tibetan Autonomous Region of China, indicates that patients there pragmatically continue to use a variety of health care resources according to their understanding

of what resources best address what symptom, and an understanding of how the nature of the illness, its onset and duration, dictates how it should be handled.[3]

While the boundaries between systems have blurred and dual resort is common if not characteristic, patients in the Tibetan world do routinely resort to biomedical treatment. Given that little more than a century ago the system was unknown to them, the question arises as to why they choose biomedicine? In this chapter we shall discuss the factors influencing that acceptance, focussing on the Tibetan exile community, but taking the wider cultural region into account.

An absence of hegemony

There has been a significant transformation in resort since the introduction of Western medicine. The records of any particular medical system do not reveal whether it is used by patients as their first resort, but the general trends are visible to practitioners. Thus, in 1911, the British medical officer in Gyantse lamented: 'In many cases, it is only when these [Tibetan doctors] have experimented and failed that the patients come to the dispensary. The result is that some of the cases are very serious.'[4] His complaint was echoed in the 1950s by a Chinese biomedical doctor who complained to Tibetan aristocrats: "When nothing [in Tibetan medicine] helps, then you come to us."[5] But by the late 1980s, one of the leading practitioners of Tibetan medicine in the exile community was voicing a similar complaint: 'Instead of coming to us only as a last resort the patients should come much earlier.'[6]

That biomedicine has attracted patients primarily due to its apparently greater efficacy might seem an obvious conclusion, but the issue is problematised in related literature. Craig Janes specifically avoided the subject, although providing a survey indicating that 34% [of nineteen patients, i.e., 7?] found Tibetan Medicine more efficacious.[7] Anil Kumar refers obliquely to efficacy as a factor in concluding that: 'It must be conceded and emphasized that 'colonial medicine', even if dependant, and public health policy, even if of a colonial character, were great improvements upon the pre-colonial medicine and health policies.'[8] Deepak Kumar is more explicit about the advantages of biomedicine. He found that, although 'reluctance and resistance were there, still many people, especially the propertied and educated classes, were quick to see the benefits', and he concludes that biomedicine 'would have established itself even without government support'.[9] A similar conclusion was reached in T.M. Madan's study of a village near Delhi. He found no indication of any culture-based resistance to biomedicine,

which was favoured by 80% of patients. They stated that the main reason for their choice was its greater efficacy.[10]

But more critical approaches to biomedical efficacy are common.[11] As Margaret Lock and Mark Nichter have observed, anthropological approaches to the subject have been dominated by theoretical understandings deriving from the work of Michael Foucault. Thus, anthropologists have disputed, 'the entrenched habit of judging medical practices everywhere in terms of measures of efficacy based on proscribed scientific (biomedical) standards', and have tended to understand biomedicine as 'an instrument of governmentality'.[12] Roger Jeffrey, for example, rejected efficacy as a factor in the uptake of biomedicine in India despite recognising that Indian patients found Western medicine efficacious and that they used it 'in enlightened self-interest'.[13] He concluded that: 'I do not believe that patients began to use Western medical facilities because they were demonstrably better (though Western doctors always claim this). They were used because they were there, and they seemed to work sometimes.'[14]

An insistence on the socio-cultural and political context of efficacy is characteristic of anthropological approaches to the issue, and the influence of Foucault is implicit in the conclusion that, 'power complexes determine what is defined as efficacious and acceptable'.[15] But, whatever use may be made of them in the political sphere, power complexes within a profession may arise democratically and be a means of raising and ensuring standards. As M. Miles points out, the fact that by 1900 biomedical dispensaries in India were attracting more than 20 million patients a year was unlikely to be 'an incidental spin-off of deep-laid harmful aims', and Miles concludes that, 'it is not unreasonable to think that many [IMS doctors] were keenly interested in controlling disease and promoting health'.[16]

We also find other works that suggest a medical encounter in which issues of power seem less prominent. Helen Lambert's study of a former Princely state territory in the post-colonial period found that 'attitudes to the selection of treatment are generally highly pragmatic', including 'knowledge of illness, previous experience, availability, economic constraints, and, sometimes, social prestige' (with the elite classes tending to favour biomedicine).[17] Economic factors emerged as 'particularly important', but the type of medical system they turned to was not that important to patients; 'new forms of therapy are generally taken up with few reservations, and treatment is generally evaluated on the basis of its perceived effectiveness.'[18] As Lambert recognises, it is significant that her work relates to a Princely state, where, during the formative colonial period, local rulers enjoyed a negotiated autonomy in areas of social policy. A local ruler's attitude to biomedicine could

make a considerable difference in the pace at which it was introduced, as we have seen in the case of Chamba state.

Most of the existing studies regarding the introduction of biomedicine in South Asia concern regions directly ruled by the British Government of India and they emphasise imperial government agency. But it is simplistic to imagine a monolithic colonial state and ignore the realities of power diffusion that operated beyond the centre and its rhetoric of control. Even in British India, imperial power was diffused and multilayered. Central health officials issued directives to provincial officials, who in turn instructed district officials, who instructed village officials who further instructed operatives. Policy implementation was liable to mediation with a wide variety of social, political, and ideological interests, as well as practical considerations, at every level of this chain, and both British and indigenous officials were liable to interpret orders in line with their own interests and beliefs. Under the Princely state system (which effectively included Sikkim and Bhutan), there were far greater limitations on imperial power, and in Tibet, while the British representatives enjoyed more power and influence than usual for diplomats, they did not have the power to institute social measures without local support.

The British colonial state had a very limited role in biomedical developments in the region under consideration here, with the exception of Sikkim. It did provide a regional model of development in terms of both structures and ideals. It did not, however, allocate regular funding to biomedical developments in Sikkim, Bhutan, or other Himalayan states under the Political Department and while it financed the biomedical project in Tibet, no regular funding or systematic effort was allocated to indigenous development or training there.

Imperial influence on medical development was also restricted by such factors as the brief two-year terms served by most IMS officers in Tibet and the peripheral location of the imperial presence prior to the establishment of a mission in Lhasa, both of which reduced biomedicine's impact. British initiatives did not lead to indigenous structures in Bhutan or Tibet, or influence to any significant degree the future development of biomedicine in either state, which took place in the radically altered circumstances after the period 1947-50. Even in Kalimpong the initial impetus to biomedical development came from the missionaries, not the Government of India.

Nor did the Himalayan states themselves enjoy the power to enforce hegemonic understandings of medicine in the 1870-1950 period. The diffused nature of power in Tibet, for example, was such that it has been defined as a 'stateless society',[19] and while individual rulers such as the 13th Dalai Lama in the 1913-33 period did centralise power, there were always multiple sources of authority there, as was the case in the

other Himalayan states. Even when a consensus developed, these states lacked the revenue necessary to support biomedical development. Expanding the system required finding new sources of income, something that only occurred in the post-colonial period in the case of Bhutan and Tibet.

The Tibetan state adopted smallpox vaccination in a limited form from the 1920s onwards and in the 1940s it paid for a small ward for its officials receiving treatment from the British hospital in Lhasa, but did not otherwise institute any systematic biomedical education, training, or public health structures. The process in Bhutan was similar, although it appears that the ruling elites there were more favourable to biomedicine but lacked the means to institute it. Only in Sikkim, where the indigenous government carried on the initiatives of the imperial government, was there effective development of public health during the colonial period. In Sikkim, however, missionaries, whose presence was not encouraged by either the indigenous or the imperial powers, also made a significant contribution to that process. Thus, while both the colonial and local states did intervene in and affect the development of biomedicine, there is little evidence from this region to support the claim that, 'power complexes determine what [was] defined as efficacious and acceptable'.[20]

It is significant that neither the colonial nor local states instituted any systematic medical record keeping until at least the 1950s.[21] Medicine's exclusion from the knowledge-gathering project is further evidence that biomedicine in this time and place was not used as 'an instrument of governmentality'.[22] While post-colonial governments did draw on new sources of income to develop biomedicine, including global finance, it was already a common resort, and, as Deepak Kumar concluded in regard to India, it seems clear that biomedicine would have become established in this region without state support. What the British did impart was a model (of dispensaries and of public rather than private sector health provision, for example), that was adopted by the post-colonial governments. State power thus dictated the structural and institutional model rather than the system of medicine.

It must be remembered in analysing developments in regard to Tibet that the colonial-era encounter with biomedicine was limited to the peripheries of the Tibetan cultural world where medical missionaries were based, and to the trade route from India to Lhasa via Gangtok and Gyantse (with a very minor presence at Gartok in western Tibet). The post-1950 influence of Chinese biomedicine was far more significant in changing patterns of resort.[23] In addition, we have drawn conclusions based on very limited sources,[24] and we lack evidence concerning strategies of resort by major social groups: such farmers, nomads, and traders; any conclusions are thus qualified.

On occasion, however, there are opportunities for illuminating comparison between Western and Tibetan perspectives in secondary sources. Thus, Mrs Rosalie Guthrie, wife of Major James Guthrie IMS, writing from Lhasa notes that: 'Distant patients were treated and it was said cured (on occasions) by a Tibetan doctor if the patient's boot was sent in lieu of the person.'[25] This seems to refer to a famous doctor in Lhasa about whom the Dalai Lama's mother stated; 'He could diagnose my illness just by feeling my shoe or belt. I did not have to go in person. I would just send an article of my clothing. But he would never attend to people if they were past the age of fifty; he said it was a waste of time, as they were about to die.'[26]

More significantly, Dr. Morgan noted that no privacy was possible at the Lhasa dispensary, and that medical consultations became something of a spectacle, attracting crowds eager for gossip and novelty.[27] But the aristocratic Jamyang Sakya was not keen to be the object of popular attention, noting that; 'there was always the problem of standing in line to get to see the doctors.'[28] She also observes the cultural difficulties for monastics in consulting biomedical physicians:

> celibate monks had never had their bodies examined .... having received certain high teachings and initiations, consider their bodies a mandalalike [*sic*] temple that is not to be disturbed. They experienced not so much a fear of the needles hurting them physically, but mental anguish over this invasion of privacy.[29]

Given that she is referring to the 1960s, and that notables such as the Panchen Lama and the Sakya Abbot had been vaccinated much earlier in the century, the depth of these feelings, or perhaps the lack of information exchange in Tibetan society, becomes clearer.

Availability and cost as factors in medical resort

Before returning to the issue of efficacy, we need to examine other factors affecting medical resort. Two very obvious considerations govern this choice – availability and cost. These are virtually universal considerations, however we define concepts such as 'illness', 'treatment', 'healer/doctor', etc.[30] Only after these very practical considerations are taken into account do other issues arise. The numerous instances of foreign travellers who consulted local medical practitioners as they passed through remote areas confirms, in the absence of choice any available practitioner will probably be consulted, and we cannot assume that choices always existed in the Himalayas. While it is difficult without in-

digenous sources to ascertain the number of 'qualified' *sowa rigpa* practitioners in pre-communist Tibet, estimates range from under 100 to around 500.[31] Even the higher figure would equate to considerably less than one monk-physician per monastery in Tibet. While these estimates seem to exclude both *amchi*s and 'village level' practitioners, they do indicate a shortage of local medical specialists throughout the Himalayas. This was particularly the case in rural or peripheral areas, with patients consequently willing to attend any available practitioner and to travel considerable distances to do so.

Biomedical development was stimulated by its practitioners actively seeking to make themselves available to patients. IMS officers did not only practice in urban dispensaries. They would also seek out local people needing treatment in nearby villages and at temporary camps set up while they were travelling. Restrictions imposed by the local states on areas that they could travel to were the only restrictions on these efforts. Missionary doctors in particular travelled widely in remote areas. As one churchman observed of missionary medicine in Sikkim; 'You had to go to the monks, but the mission doctors came to you.'[32]

However, biomedical physicians were primarily based in urban centres, as were local medical practitioners.[33] As a result, they were more often competing with the local physicians than operating in a medical vacuum, and in cases where they did attract patients because they were the only available doctor do not indicate a choice of resort to biomedicine, but only a pragmatic resort to any medical treatment on offer. Availability thus introduced people to biomedicine, but it did not necessarily influence their *choice* of resort. Cost seems a fundamental issue. The patient (or his kinship or social networks), must be able to afford appropriate medical treatment if it is available. Historical consideration of this factor is problematised by the Sino-Tibetan problem of competing pre-1950 Tibet images. Medicine is an element in these discourses, thus pro-communist European observers claimed that Tibetan physicians

> ministered only to the higher ranks of the lamas, the nobility and officers of the army. Poor monks and laity were entirely dependent on prayer and such simple home remedies as were known to them.[34]

In contrast, exile sources often tend to imply that medical services in pre-1950 Tibet were freely provided as an act of Buddhist compassion. Thus, we read that at the Men-ze khang hospital in Lhasa 'All medicines were free of charge and there were no doctors' fees.'[35] The Menze khang apparently drew on the model of state medicine in British In-

dia and thus treatment there probably was free, but it is difficult to reconcile these highly politicised claims.

There is evidence that medical professionals in Tibet, as elsewhere, normally charged for their services. Itinerants lived off the practice of medicine and monks provided professional medical services as they had since the beginnings of Buddhist monasticism in India.[36] The Jesuit Desideri's 18th century account of Lhasa doctors seems no more than realistic in stating that they were, 'well paid and generally stipulate what their fee is to be before undertaking a cure'.[37] A 1906 colonial report on Gartok, in western Tibet, states that:

> There is an ordinary hakim [i.e., local doctor] at a place three stages from Gartok; but his fee is very heavy, which the Zamindars [landlords] of this place cannot afford to pay. Many of them die for want of treatment in consequence.[38]

Given that the landlords were among the wealthier people in Tibet, this suggests non-elite groups had little hope of professional treatment. But there is evidence that free medical aid could be available to the poor; a leading private practitioner of Tibetan medicine in the modern exile community states that their practice

> is not charitable work. But persons of any religious order, like saddhus, [and] lamas are treated free of charge. The poor are also treated free of charge. From those who can afford to pay I charge the cost of medicine. In all cases, consultation is free.[39]

Given that this doctor was the 13th in her particular medical lineage, that concept does appear to represent at least one strand of the economic issue in Tibetan medical practice. Many *amchis* did offer free medical treatment, considering it as part of a religious duty, and in return they gained enhanced social status.[40] It may be safest to conclude that the issue is complex and that the situation probably varied with individuals, but even the question of cost is complicated by cultural factors. Both the imperial government and the missionaries provided free medical treatment (including medicines), to all comers in the areas under consideration (as did the Chinese hospital in Lhasa in the 1940s), with some exceptions in regard to the wealthy elites. In the British understanding, therefore, their health services were free, something assumed to be a major attraction to patients and a politically valuable example of imperial benevolence. It was also an implicit challenge to local medical practitioners and their income, and might have been designed to alienate them.[41]

Given that free treatment was offered, we might presume that patients unable to afford treatment from indigenous practitioners thus resorted to biomedicine for economic reasons. But, although many of the patients at the IMS dispensaries came from the poorest classes, that conclusion is problematic. Desideri, describing Capuchin medical practice in Lhasa, notes that their mission, 'have with great charity given medicine to sick people and have cured many without asking for any money, *only accepting any present which is offered*'.[42] The IMS officers similarly 'cured many without asking for any money', and, like the Capuchins, accepted 'presents'. This was usually in the form of foodstuffs such as eggs, meat, or yak butter, and were of no real value to the British.[43] The gifts were accepted out of politeness and were certainly not regarded as payment by the imperial physicians. They were aware that it was the custom throughout the Buddhist Himalayas to bring gifts when visiting – not only officials (which would have implied corruption in British understanding) – but also family and friends.[44] The offerings were thus seen as a quaint cultural practice and accepted, albeit often promptly disposed of. This still occurs in remote parts of the Himalayas today, with indigenous biomedical doctors accepting items of little use to them because they consider refusing such gifts would be seen as insulting by the patients. As a Tibetan medical practitioner recalled; 'Often I didn't want to accept pay for the medicine, but on many occasions the buyer would insist.'[45]

The concept of reciprocality was inherent in Himalayan society, with payments expected in return for government and monastic posts, certain exclusive religious teachings, and so on. But much of the indigenous population existed outside of a cash economy, and payment for any services was 'in kind'. Thus, in their understanding, 'gifts' to physicians equated to payment, and even if they were aware that that was not required, gifts might still be given in the very human belief that they would ensure a higher standard of treatment. There was also a Tibetan belief that medicine could not be effective if there was no payment for it.[46] Thus, even if a growing understanding that free medical treatment was exactly that did encourage resort to biomedicine, economic factors were probably much less significant than the British hoped. Nonetheless, the British did establish a tradition of state responsibility for free public health and with some restrictions, state biomedical treatment remains free in this region to this very day.

Nationalist factors in resort

If the immediate practical considerations of availability and cost cannot explain resort to biomedicine, other issues must be considered. We

have seen that it is difficult to contextualise the medical transformation in this region in terms of imperial or indigenous state power. The government did play a more powerful role in Sikkim, as it did in post-colonial Bhutan and Tibet, and in areas such as Kalimpong and Chamba where the twin forces of missionary and colonial state medicine combined to introduce biomedicine. However, the fractured process of biomedical development and its introduction by various agencies is not indicative of any monolithic forces. Instead, it may suggest that state and imperial governments, were slow and limited in responding to their peoples' demand for biomedical services primarily for financial reasons.

The most significant class involved in the process were the local lay and monastic officials who permitted and even sponsored biomedical initiatives in places like Gyantse. These individuals enjoyed considerable autonomy within their own system and they were powerful enough to thwart many British initiatives they did not approve of,[47] so their acceptance of biomedical initiatives cannot be seen as dictated by higher powers. It appears that significant numbers of these individuals came to the conclusion that biomedicine was in their interests. Those interests are rarely explicit in the sources, but given that the income of most lay and monastic officials was derived from local estates, economic concern with the health of the wealth-generating classes may be presumed, as well as humanitarian concerns with their peoples' welfare.

These local officials and elites were not, however, a unified class even in the face of external threats. Socio-economic competition between aristocratic families was endemic to the system,[48] and there were a variety of both lay and monastic local, regional, and state officials, as well as religious authorities, all existing in complex patterns of power and competition. The acceptance of biomedicine – not necessarily at the expense of local practices – was by individuals from these classes, not from a unified class. Biomedicine in Tibet in the colonial period was not, therefore, a powerful tool of government nor was its development dictated by a unified power complex; it spread because individuals saw its benefits. As one aristocratic woman, Jamyang Sakya, herself a Tibetan medical practitioner, recalled of her experience with Chinese biomedicine in the 1950s: 'Never before had I surrendered myself or my child to Chinese medicine. But it was clear that our treatment wasn't helping ...'[49]

One factor shown to be historically relevant in the reception of biomedicine in India is the role of nationalism, with the nationalist movement manifesting itself in various aspects of the medical process there.[50] But the multi-ethnic Indo-Tibetan frontier was largely outside of any nationalist discourse in the colonial period. The indigenous governments opposed Indian independence, advising the British to crack

down on the nationalists, although fantastically inflated rumours of Gandhi's activities suggests there was some popular support for his campaign.[51] Sikkim and Bhutan existed in treaty relationship with the British Government of India, and as primarily Buddhist societies culturally and historically orientated towards Tibet they had little interest in a Hindu India. Bhutan was free of resident colonial officials, and resolutely opposed to the idea of an Indian being appointed as Political Officer there,[52] while Sikkim included a number of different races, communities and language groups to whom Indian nationalist discourses were largely irrelevant. Consequently, there is little indication of any united political consciousness directed at expelling the colonial power from those states.

Both Sikkim and Tibet lacked a sense of nationalism in the European understanding of the term that is associated with a nation-state.[53] While there was a distinct Tibetan identity deriving from such factors as shared language, diet, dress, mythology, etc., existing identities there were primarily local rather than national. There is considerable literature on this issue,[54] which cannot be dealt with here, but further evidence for this is that the British were explicitly trying to develop a sense of nationalism in both Sikkim and Tibet as a means of unifying and thus strengthening their frontier 'buffer-states'.[55] But this absence of national consciousness in the colonial period seems to have prevented the development of an association between medicine and nationalism as proposed for India, while as noted in the introduction, minority Christian communities may have held to a sense of a wider Christian community as their primary identity.

In the post-colonial period, when nationalism did develop in the Himalayan states (largely in response to perceived and actual threats to their culture from Chinese and even Indian activities), its primary effect in the medical field was to stimulate the systemisation, development, and promotion of indigenous systems rather than to explicitly challenge biomedicine. Nationalism was certainly a key factor in the emergence of Tibetan medicine and its international promotion, and it also appears to have played some part in Bhutan's medical developments in recent decades as the Bhutanese seek a distinct national model of progress. But the most convincing evidence against the concept of state or other power complexes as the primary force in promoting a medical system is that it cannot be reconciled with the general pattern of resort, which was and is, selective. In both the colonial and post-colonial periods, patients have resorted to biomedicine for a limited range of conditions, often in conjunction with continuing to resort to local cures, a pattern recurring throughout the Tibetan cultural world. However, selective or dual resort are not strategies promoted or imposed by any system, authority, state, or power complex and are more suggestive

of understandings of efficacy than of ideological impulses. They indicate patients' pragmatic selection of what they perceive as the most efficacious curing strategy available to them.

The steady increase in resort to biomedicine indicates the increasing number of conditions for which the biomedical was perceived to be the most efficacious cure. There are indications that cultural familiarity with the general contours of particular curing strategies enhanced acceptance of those practices. Cataract surgery, for example, was known in Tibetan medical culture, the general concepts of splinting fractures and of bandaging and covering a wound with some curing substance were understood, and a system of variolation existed to pave the way for acceptance of smallpox vaccination. Such biomedical practices may, therefore, have been seen as superior rather than novel or 'foreign' treatments.

One characteristic of the growing belief in biomedical efficacy was an understanding that biomedicine cured rapidly, and patients were liable to turn to other cures when that did not occur. That understanding seems to be a wider phenomena; Mark Nichter, for example, in a study of Indian villagers' resort strategies, concluded that they would wait an average of four days for symptoms to diminish or disappear before seeking an alternative cure.[56] Biomedicine's prompt action remains a significant factor in resort in the Himalayas today, where even those with a personal preference for indigenous medicine will resort to biomedicine due to the demands placed on their time by the pace of modern society. But the reluctance to undergo lengthy biomedical treatment, despite familiarity with the need for extended treatment in indigenous practice, suggests that prompt efficacy was a more important factor in biomedical uptake than cultural familiarity with aspects of the system.

The increasing resort to biomedical cures may also have been affected by the circumstances surrounding the initial encounter with them. Given that elements of the Tibetan army were drawn from a wide geographical range, knowledge of the efficacy of biomedical treatment of wounds and fractures would have become widespread after the war of 1903-04. In the case of venereal disease, biomedical treatment was the favoured resort of the Chinese soldiers in Tibet, enabling them to act as cultural intermediaries encouraging similar resort by Tibetans.[57]

But while these elements may explain initial resort, that patients came to favour the biomedical over the indigenous form does suggest that the new treatments were accepted because they were understood as being in some way more efficacious than the indigenous therapies. In the case of smallpox vaccination, for example, the Tibetan government's acceptance of vaccination was contrary to their prevailing ten-

dency to reject Western modernity after the early 1920s, and indicates that vaccination was primarily accepted because of its established efficacy.

Monastic competition and the rise of a new elite class

British officials attributed the gradual uptake of biomedicine in the Himalayas to the conservative nature of society there, in particular the socially influential monastic sector. The British tended to demonise this collective body they termed 'the monks' rather than to engage with the wider issues their views represented, for it was an article of faith among the British that the monastic elites opposed imperial endeavours in order to protect their own privileges. But, although the monasteries had a significant role as cultural guardians, they also represented a cross-selection of society. While the monastic elites were usually from aristocratic families that acted as patrons of the monastery, the monks were drawn from all social classes, and had some opportunity for advancement based on merit. The monasteries were thus an integral part of the communities they served and their leaders were in close touch with community feelings. While doubtless seeking to protect their own narrow interests in many cases, they also needed to serve the interests of that wider community.

The decision to resort to monastic medical practitioners may have had a gender aspect as well, with women considered as the more determined keepers of tradition. Dr. Pemba recalled that when he was sick during his youth in Tibet, his father didn't want to call in the monks, but, 'thought it would be better … because if anything went wrong, mother would put the blame on him'.[58]

Dr. Morgan also noted this tendency, recalling that, 'it was the womenfolk who were always to the fore in urging compliance with the time honoured and orthodox procedure of summoning the lamas'. When he questioned his Sikkimese Buddhist clerks regarding their strategies of resort, they replied that their first resort would be to the sub-assistant surgeon Bo Tsering, however, if symptoms persisted; 'they would be compelled to call in the lamas, if only to allay the nagging of the womenfolk'. Perhaps more importantly however, they would also do so because to do otherwise would 'prejudice good relations with the priesthood and [mean they would] encounter difficulties when they required their services for some purely religious purpose.'[59]

It does appear that at least into the 1940s, as the British had complained, it was only when the monks 'had experimented and failed'[60] that they recommended patients turn to the IMS dispensaries. However, there is no record of any organised monastic resistance to Wes-

tern medicine and individual monks are recorded as being among the first to resort to it. As we have seen, the only explicit active resistance to the biomedical project recorded in British sources, was the resistance to smallpox vaccination around 1910, which emerged among villagers, with no mention of it involving monastic powers. Despite cases of hostility toward the new system on the part of individual monks noted in the British records, their opposition does not appear to have been systematic.

One of the weaknesses of the British political and medical project in Tibet was that it primarily sought the consent and patronage of (what they considered to be) the more secular aristocratic elites. There were incidental cases of friendships and alliances developing with religious leaders at various times, but, in general, the British understood the monastic powers as hostile (a belief that had developed in the lead up to the Younghusband mission). It was only after they gained a permanent presence in Lhasa after 1936 that a concerted effort was made to cultivate the friendship of the leading monastic authorities there and those efforts did coincide with increasing biomedical resort.[61]

The influence of the Dalai Lama was recognised as being of great significance in Tibetan Buddhist society. Having had smallpox (which generally confers future immunity), the 13th Dalai Lama did not need to be vaccinated when he went to India and there is no indication that he ever resorted to biomedicine. But there is evidence that he was not opposed to it. While suffering a fever in 1921 he accepted – at least for 'a day or two' – advice relayed from Dr. Kennedy that he should rest.[62] He is also reported to have stated as early as 1908 that he intended to send Tibetan students to study science and medicine in India,[63] he sent an approving letter to the American medical missionary Dr. Albert Shelton, and he cordially received the IMS physicians who visited Lhasa in the 1920s and 1930s.

The Dalai Lama also seems to have favoured the model of the public health system in British India, which he had observed while in exile there in 1909-12. While an account of the founding of the Men-ze-khang in Lhasa around 1916 is an unfortunate lacuna in the field (and there are only passing references to it in British sources), that institution is generally assumed to have followed the Indian model. Even in the 1920s, when most aspects of modernity were rejected by the Tibetan state, vaccination was adopted at the state level, suggesting that the Tibetan ruler recognised its benefits. What appears to have been his cautious sanction of aspects of biomedicine and support for their indigenisation can be seen to have been adhered to by his followers. Later, after his death in 1933, the Tibetan Regents and later the young 14th Dalai Lama resorted to biomedical treatment at the British hospital in

Lhasa and in exile the present Dalai Lama has continued to support and resort to both biomedicine and *sowa rigpa*.

The British imperial medical project was particularly focussed on the elite classes. While keen to offer biomedicine to all, the British regarded the elites as the key to long-term biomedical acceptance. This was consistent with the wider tendencies of British imperial expansion in South Asia, a process that generally involved cultivating an alliance of interests with elite groups in local society. These elites were also the focus of other aspects of modernisation; receiving scientific and technological advances, modern weaponry, a Western education for their children, and so on. This process led to the creation of a new (generally urban), Westernised elite class with some knowledge of European worldviews, and identification with aspects of Western social and political activity. Disproportionately represented in colonial memoirs, this group, which may have resorted to biomedicine for reasons of status and as an indicator of association with Western modernity, was nonetheless small, of limited influence, and remained both Buddhist and nationalist, rather than secular and internationalist.

The construction of a class with a wider modernist worldview took time, and in Tibet and Bhutan the process was never fully realised in the colonial period largely due to their location outside the formal structures of empire. But the British records (which are heavily weighted towards the Westernised elites for both geographical and strategic reasons), do indicate that this class was increasingly represented among those resorting to biomedicine. While this was a very small group within Himalayan society, the hierarchical nature of that society was such that their example stimulated other groups to resort to the new system. But it would be very easy to overestimate the impact of modernity on ordinary Tibetans in the pre-1950 period. Their society and its technologies and understandings were largely untouched by modernity outside of the Gangtok to Lhasa trade route via Gyantse.

The importance of education

What is clearly of particular, almost fundamental importance to the acceptance of biomedicine is a Western education, as can be seen by a comparison of Tibet and Sikkim. Sikkimese began to receive Western education from the 1870s onwards after Christian missionaries in Kalimpong actively sought to attract Sikkimese to schools that they had established there. By the 1880s, there were Western model schools in Sikkim itself. When the first biomedical dispensaries in Sikkim were opened by both state and missionary agents in the late 1890s and early 20th century, the medical practitioners at those dispensaries were

mainly those Sikkimese educated in mission schools. While these pioneers were only trained to the compounder level, the next generation of Sikkimese began qualifying as sub-assistant surgeons. That group formed the basis for the indigenisation and expansion of biomedicine in Sikkim, although it was not until the late 1940s that any Sikkimese graduated as fully qualified doctors. In Tibet, however, as we have seen, very few individuals received a Western education and although a few Tibetans gained some medical knowledge from working with the British, a significant body of Western-educated youths did not exist until Tibetans began sending their children to schools in Darjeeling and Kalimpong in the late 1930s. Not until the post-colonial period did these private initiatives produce biomedical trainees both in China and in India and the West.

An education imparting the Western worldview and scientific understanding seems an essential precursor of biomedical training. Similarly, resort to biomedicine increases in relation to the growth in Western-educated patients. This continues to be a factor today, with resort to biomedicine in Sikkim being more prevalent among the better educated sectors of the population.[64] But it is also clear that the vast majority of patients resorting to biomedicine in Tibet had not been educated in the Western system, so while this is an important, and even crucial factor in establishing biomedicine in the long term, it does not explain resort in the short-term.

There is evidence from the Himalayas to support David Arnold's conclusion that in India the indigenisation of medical personnel, 'probably facilitated the eventual acceptance and assimilation of what had once been exclusively the white man's medicine'.[65] The indigenisation process was most successful in Sikkim, where Anglo-Indians held the highest position of Civil Surgeon Gangtok for most of the colonial period and other medical positions were increasingly filled by Sikkimese. In Tibet, the British accepted that patients were more comfortable with the (to a large extent culturally Tibetan) Sikkimese than with British officers. As Dr. Morgan stated; 'I felt that Bo [Tsering] in his humble way – in fields social, medical and political – could inspire more trust, more confidence, and foster more friendship than perhaps any of us.'[66]

We have seen that when the Republican Chinese established a biomedical hospital in Lhasa they took patients away from the British hospital. In addition, as we have seen, there are records that show that Nepalese vaccinators and Chinese private physicians earned a living in Tibet in this period, which again suggests that Tibetans preferred biomedical practitioners from neighbouring states, despite historically difficult relations with both China and Nepal.

Experience of treatment by Sikkimese, Chinese, Nepalese, and Indian biomedical practitioners does seem to have helped transform bio-

medicine from a 'Western' to an 'Asian' practice in the Himalayan understanding, enhancing resort. But perhaps more significantly, the biomedical doctors increasingly adjusted aspects of their system to incorporate local cultural understandings. Surgery on a day chosen as auspicious by the patient's religious advisors and greater access to the hospital for inpatient's families were colonial-era innovations that are today standard practice in the region. By the 1940s, the British doctors were serving longer terms and had improved their command of the language, establishing closer ties with the local society. Their consequently increased understanding of local culture lead to their making concessions to local understandings, concessions that undoubtedly contributed to increasing resort to biomedicine for a wider range of conditions, while simultaneously creating a greater degree of syncretism between the two systems, paving the way for post-colonial developments. This supports the conclusion of Rosemary Fitzgerald, who in India noticed that:

> Medical missionaries found that they could only begin to gain the trust and confidence of the people if the delivery of mission medical care was adapted to harmonise with Indian sensibilities and habits of living … by making concessions to local feelings on matters such as gender, caste, class and communal differences, at least the trappings of missionary medicine took on a less forbidding appearance … [but they] … depended ultimately on the ability to deliver effective forms of treatment.[67]

World views, process, and biomedicine

One factor that must be considered in regard to the acceptance of biomedicine in Tibet is the possibility that for some Tibetans resort to the new medical system was a reflection of a period of loss of faith in their dominant socio-religious system; in other words, their resorting to biomedicine may be read as resistance, not to modernity or British imperial power, but to the prevailing Tibetan system. When British machine guns massacred hundreds of poorly equipped Tibetan soldiers in one brief skirmish during the Younghusband mission, Tibetan troops slowly walked away in the face of such deadly force, instead of running away. A British war correspondent suggested that this was due to a sudden and complete loss of faith in their traditional worldview after the obvious failure of their charms, mantras, and protective rituals.[68] The American missionary Shelton describes a very similar reaction that the Tibetans had when he shot holes in their supposedly bulletproof charm boxes to demonstrate their worthlessness.[69]

Mental illness is not something we looked at for this study, because the records of the IMS dispensaries and the accounts of European travellers in the Himalayas do not mention psychiatric illnesses. Indeed, as late as 1958, an article in the *International Record of Medicine* stated that mental illnesses 'are not found in Tibet'.[70] But Tibetan categories of mental illness are very different from Western categories, and psychologists have found that applying European understandings of 'mental illness', 'trauma', etc., to Tibetan subjects is problematic. However, Dorje Yudon Yuthok refers to her aunt becoming 'insane' with grief after the successive deaths of her child and husband in 1918, and notes that her caretakers, 'tried never to upset her. They tried to please her by doing whatever she wanted. This was the Tibetan way to support people who are deeply disturbed or mentally ill.'[71] Another account from Sikkim states that these conditions were considered shameful in local society, and that the victim was generally hidden away.[72]

But however one defines mental illness, the Younghusband mission and the ensuing years of turmoil must have had an immense psychological impact on Tibetans who witnessed it. When British troops marched forcefully into Lhasa, they not only shattered Tibet's carefully cultivated isolation from the outside world, but also explicitly challenged the religious authority of the elite structures of the Tibetan Buddhist state. The elite's claim to divine authority and to the power to manipulate worldly events was rudely demolished and it is difficult to believe that the faith of at least some Tibetans in their rulers was not diminished by their empirical observation of modern power, and that they did not imagine alternative political systems and even different ways of seeing the world.

The existing literature in this field tends to presume acquiescence in existing indigenous cultural systems and to read resistance as exclusively directed against the imperial powers or their post-colonial successor states. This seems simplistic. There were complex factors involved in the reception of Western medicine, with opposition to vaccination in colonial India, for example, not just because it was 'European in character'.[73] While there are few records of non-elite resistance to the Tibetan system in the modern period, it would be naïve to assume that Tibetans did not, particularly in the largely leaderless years from 1904-13, question their own, apparently failed, system.[74] Thus we need to consider the possibility that, in some cases, initial experimentation with biomedicine was a manifestation of a loss of faith in or a resistance to the Tibetan social system and/or its elite monastic medical practitioners. Paul Unschuld's work on the Chinese encounter with biomedicine seems to support this conclusion. He states that:

> A system of health care concepts and practices is plausible and acceptable when its ideas concerning the emergence, nature, and appropriate treatment of illness correspond to the sociopolitical ideas concerning the emergence, nature, and appropriate management of social crisis adhered to by a social group or by an entire society. ... From this it follows that a conceptual system of medicine ceases to be vital and creative when its major legitimizing circumstances, its particular context of social ideology and social structure, vanish, either in reality or in the aspirations of a population.[75]

The question of changing worldviews among changing political circumstances may be relevant to another aspect of this study. While the educated might understand a biomedical treatment as a logical response within a scientific framework, in traditional understandings there was clearly uncertainty regarding the boundaries of biomedical practice. We read of 'lamas who wanted their voices improved', and a man wanting medicine to make his ears grow bigger.[76] One Tibetan asked, perhaps ironically, if Europeans had not found a cure for death?[77]

Biomedical powers wielded by foreigners might be regarded with particular trepidation. This was something biomedical physicians appear to have recognised, with the British use of Sikkimese medical assistants in Tibet designed to demonstrate that the power of biomedicine was available to all. But many aspects of biomedicine, such as blood transfusions, were strange and forbidding.[78] Another example of this was that although anaesthetics were known to their doctors,[79] Tibetan patients, as we have seen, were generally reported to be reluctant to receive what they called 'dying medicine'[80] from British physicians. The conventional reading of this would be a fear of surrendering control of 'the body'; yet it also suggests an area of religio-cultural understandings in which the scientific world view and the traditional worldview were in negotiation.

Tibetans reacted similarly to hospitalisation; the hospital was both a place where control was lost and an institution entirely unfamiliar to Tibetans. It was also a place that was frightening because of the polluting aspects (blood, etc.), that had not been ritually purified. Jamyang Sakya described her first visit to a (Chinese) biomedical hospital in the 1950s in apocalyptic tones":

> The hospital complex was like a vision of hell; doctors with needles, strange noises, many wounded and ailing people. Children seemed to be crying all the time. The nurses and doctors all had

> their heads and faces covered and the nurses especially all looked alike to me.[81]

Tibetans were thus reluctant to become inpatients. Biomedical practitioners responded to these fears in a variety of ways such as Shelton's glass-walled operating theatre, and they were keen to explain their system to any interested parties. Jamyang Sakya and her husband were given a hospital tour by Chinese doctors, with the result that 'I emerged from this visit willing to give the Chinese far more credit for such knowledge than I had in the past.'[82]. But the local peoples' traditional worldview certainly affected the reception of biomedicine and sustained elements of the indigenous medical practices.

While disease causation was ascribed to other-worldly factors in many cases, it was also recognised in the Tibetan cultural world that an immediate cause might exist for illness and suffering. That immediate cause and its results could be treated by worldly – including biomedical – means. But cures for other-worldly issues remained within indigenous cultural practices, with practitioners of religion-based healing consulted on these issues.[83] The understanding of medical conditions as having both worldly and other-worldly aspects meant not only continued resort to the indigenous systems, but dual resort, which while notoriously difficult to measure even in a society with advanced record keeping, was and is clearly commonplace.[84]

Dual resort could involve either the use of indigenous practices for the other-worldly aspect of a condition treated at the worldly level with biomedicine, or the use of both indigenous and biomedical therapies at the same time. Accounts by Tibetans as well as studies elsewhere,[85] indicate that these strategies were followed in the Himalayas in the period under consideration. As British sources indicate, in many cases, the patients' indigenous healers recommended biomedical resort, which means that biomedicine may have drawn patients more from indigenous herbalists than ritualists. But it is also possible that the strategy of dual resort indicates a widening of medical knowledge horizons and was patient driven, anti-structural, or a claim to authority.

Although the missionary doctors saw a resort to local practitioners in ideological terms, the IMS biomedicals and their local successors seem to have reluctantly accepted it. However, the Chinese communist biomedical professionals, like the missionaries, may have seen it in ideological terms, for Jamyang Sakya states that when she took her child for biomedical treatment in the 1950s, the Chinese doctor made them choose which system they would follow. The Chinese subsequently, 'reminded us not to give Ani-la any more Tibetan medicine, saying it was to blame for his continued ailment'.[86]

That patients followed the recommendation of their indigenous medical practitioners suggests that the traditional practitioners did retain some authority for diagnosis, and indeed for knowledge of the best available cure. A key factor in the authority of a Tibetan medical practitioner was his (it was almost invariably a 'his') teaching lineage.[87] According to the Gyü-shi:

> a doctor who does not belong to a hereditary family of doctors, maintaining an unbroken blood-lineage of medical learning, experience and skill, is like a fox who occupies the throne of a lion and pretends to be the king of the animals. Such a doctor will not attain unanimous acclaim and recognition as no animals will take the fox as their king.[88]

Biomedical doctors had a much weaker conception of their place in a teaching lineage. It was through the demonstration of efficacy that they sought to establish their authority.

Patient choice

It does appear that understandings of efficacy were the crucial factor in the uptake of biomedicine. Whenever its treatments were found more effective than the indigenous cures they were adopted. Biomedical progress was slow, but nonetheless, increasing numbers of people came to favour at least aspects of it over indigenous treatments. They were naturally uncertain regarding the limits of biomedical efficacy, with a learning phase that lasted for several decades. They understood biomedicine as fast-acting, and tended to continue to use local practices where the biomedical cure was not a rapid one. The pattern of selective resort, however, ensured the survival of indigenous medicine, and led to the creation of a medical world embracing a range of treatment options under different systems.

Individuals did make choices in regard to medical resort. While biomedicine may have been a last resort and/or only adopted on the advice of monastic or other social authorities, for us to ignore those choices means adopting the Orientalist construction of a monolithic Asian 'other', passively following the dictates of an unchanging tradition or omnipotent ruler. We cannot assume that the local system was unchallenged or that patients or their advisors did not make pragmatic choices based on rational considerations of cost and efficacy. We can also not ignore the fact that just as patients accepted aspects of their own medical system as involving other-worldly cures, they also viewed aspects of biomedicine as involving other-worldly factors. With neither

state power nor identification with a national identity as significant factors in their resort, the perceived efficacy of a specific treatment or a particular doctor's medicine was more significant than the perceived efficacy of a specific system. Thus, Tibetan army commander Tsarong Shapé had an *amchi* as a family doctor, but also consulted the British doctor when he thought that biomedicine would be more efficacious, as in the case of his son's dislocated arm.[89]

The efficacy of biomedicine actually varied considerably. The smallpox vaccine was prone to decaying in the absence of an established holding agent and the efficacy of a single dosage declined over time. Venereal disease required continued treatment and secondary infections undoubtedly resulted from the Tibetan's reluctance to undergo repeat treatment after the initial symptoms had disappeared. Nor could blindness always be reversed by surgery. However, biomedical treatments were increasingly recognised as more efficacious than the indigenous practices for most conditions.

But the Tibetans were not comparing the efficacy of two competing systems. They were already making choices within their own culture in regard to medical resort, and biomedicine was in many senses just another option. Biomedicine did not compete with 'Tibetan medicine', but with a range of medical practices and understandings within Himalayan society. It is here that the absence of detailed records of patients' class and occupation is most keenly felt; we simply do not know which groups consulted which practitioners of which system, although as noted, there are indications that the secular aristocracy were disproportionately favourable toward biomedicine. But that conclusion may merely reflect the agenda of the British sources and it is also possible that the lowest social classes found the biomedical system more appealing for reasons of economy and even for the reason that they were received and treated with more equality. In matters such as vaccination, the trading classes, who had little option but to be vaccinated when travelling to India, may have led the way in recognising its efficacy.

The conclusion that resorting to biomedicine was primarily a matter of individual belief in its efficacy aligns this work closely with the studies of scholars such as Rosemary Fitzgerald and Helen Lambert. Alan Beals' research into villagers in northern Mysore in the 1970s painted a similarly prosaic picture of patient resort strategies, with individuals 'prepared to accept all knowledge and to attempt all treatments'.[90] He found that dual resort was common and that the patients' choice of resort was determined more by the advice of elders or by their economic situations than by belief systems, with the cheapest system being usually the first tried.[91]

Martin Gaenszle has found a similar pragmatism operating in Nepal where; 'As long as the medicine is free, patients tend to be more open-